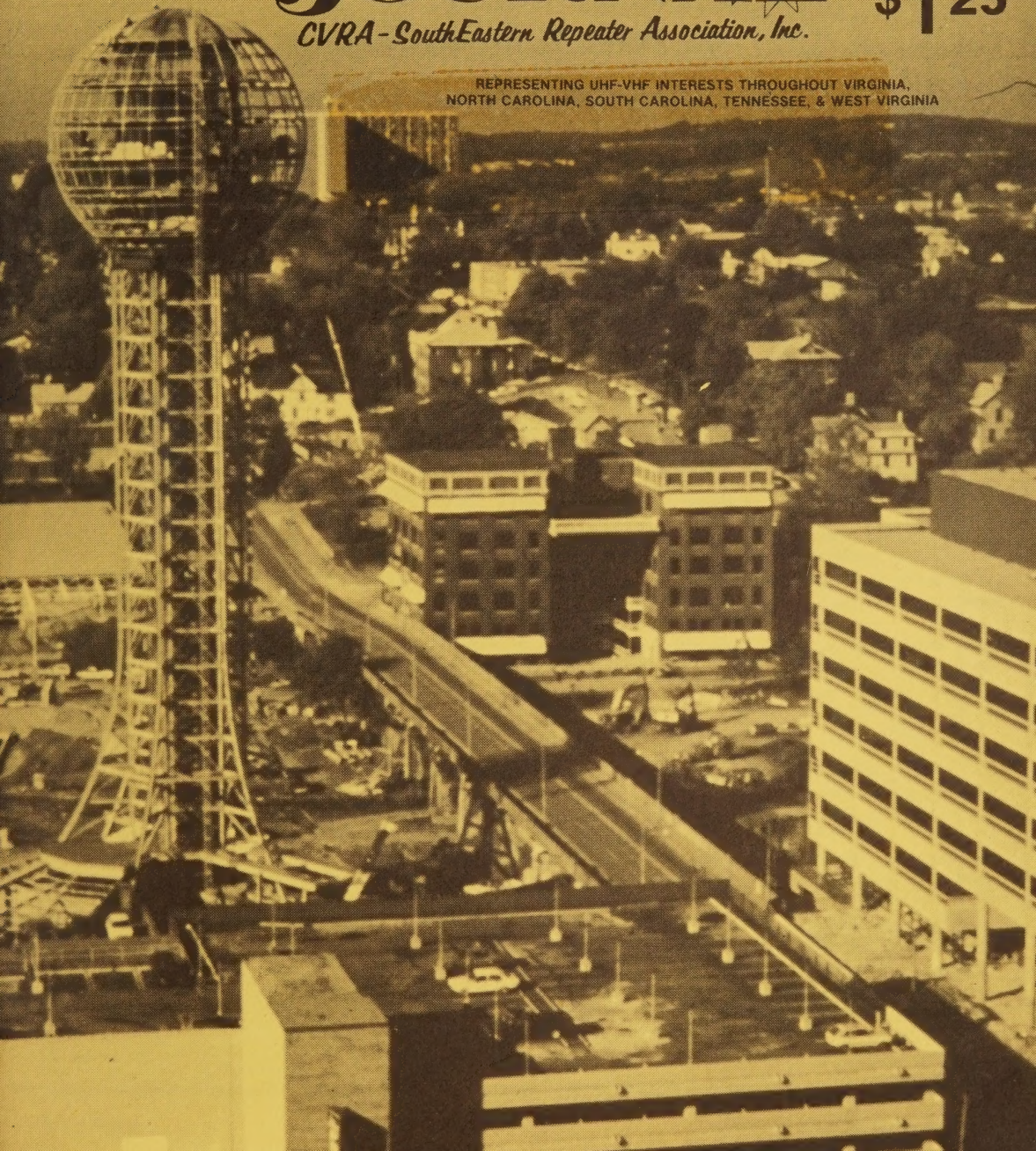
REPEATER JOURNAL

MAY 1982

$1.25

CVRA - SouthEastern Repeater Association, Inc.

REPRESENTING UHF-VHF INTERESTS THROUGHOUT VIRGINIA,
NORTH CAROLINA, SOUTH CAROLINA, TENNESSEE, & WEST VIRGINIA



1982
ARRL DELTA DIVISION CONVENTION
AND
16th ANNUAL KNOXVILLE HAMFEST

A CONVENTION PROGRAM
THAT HAS SOMETHING FOR
EVERYONE:

THE FUTURE OF AMATEUR
RADIO
With Vic Clark, W4KFC
President of the ARRL

DX FORUM
With Don Search,
W3AZD, Head of DXCC

ARRL FORUM
With Clyde Hurlbert,
W5CH, ARRL Delta
Division Director

COMPUTERS & HAM RADIO
With Stan Pinkelton
and Radio Shack

FAST SCAN TV
With K4KFD & K4ARC

THE ANSWER MAN
With Dick Frey, K4XU

CQ 5B-WAZ
With Gary Dixon,
K4MQG, CQ 5B-WAZ #2

ARMY & NAVY MARS
Statewide Meetings

WOMEN'S PROGRAMS

PLUS:
RON McKEAN MEMORIAL
CW COMPETITION

SHUTTLE BUS TO
1982 WORLD'S FAIR

DXCC QSL'S VERIFIED
BY DON SEARCH, W3AZD

CQ-WAZ QSL'S VERIFIED
BY BOB MAY, K4SE

4-LAND ONE-LETTER QSL
BUREAU CARDS DELIVERED
WITH 30 DAYS NOTICE TO
AA4R

MAY 22-23, 1982
AT
BEARDEN HIGH SCHOOL
8352 Kingston Pike
Knoxville, Tennessee
FROM
9 AM - 5 PM SATURDAY
10 AM - 4 PM SUNDAY

GENERAL ADMISSION:
$2 in advance
$3 at the door

ALL TICKETS ARE GOOD
FOR GRAND PRIZES AND
DOOR PRIZES

EXHIBIT RATES:
(Applies to Dealers
and indoor flea market)

$8/Table-Both Days
$5/Table-One Day
MANY DEALER INCENTIVES

BUILDING OPENS SATURDAY
AT 7 AM FOR EXHIBITORS
(Friday night setup with
advance registration only)

OUTDOOR FLEA MARKET:
(Table not furnished)

TALK-IN: W4BBB on
W4BBB/R 147.90/30
WB4IOB/R 146.13/73
WA4YON/R 222.86/46
SIMPLEX 146.52/52

FOR MORE INFORMATION:
(Dealers, Tickets,
Reservations, etc.)
WRITE OR CALL-
Raymond Adams, N4BAQ
5833 Clinton Hwy.,
Suite 203
Knoxville, TN 37912
Day: (615)-688-7771
Night: (615)-687-5410

FOR ALL LODGING, CALL-
Knoxvisit, Inc.
(615)-971-1015

$$$$$$$$$$$$$$$$$$$$$$$$$
GRAND PRIZES:

FIRST PRIZE- $200 to $400
SECOND PRIZE-$150 to $300
THIRD PRIZE- $100 to $200
(CASH AMOUNTS CONTINGENT
UPON HAMFEST ATTENDANCE)

IF YOU WOULD LIKE YOUR
PRIZE IN MERCHANDISE
INSTEAD OF CASH, PLEASE
CHOOSE FROM OUR MANY
FINE EXHIBITORS

PLUS:
MANY FINE DOOR PRIZES
TO BE GIVEN AWAY DURING
THE CONVENTION

A BONUS PRIZE WILL BE
DRAWN SATURDAY MORNING
FOR ALL ADVANCE TICKETS

$$$$$$$$$$$$$$$$$$$$$$$$$

BANQUET:
SHERATON EXECUTIVE PARK
KNOXVILLE, TENNESSEE
7:30 P.M.
TICKETS- $15

FEATURED SPEAKER:
Clyde Hurlbert, W5CH
Delta Division Director

THESE FINE DEALERS AND
MANUFACTURERS WILL BE
ON HAND:

TEN-TEC, Inc.
G.I.S.M.O.
CQ Magazine
KDK Distributing
Hoss Trader Ed
Surplus Electronics
Radio Shack Computer Ctr.
GLB Electronics
Delta Enterprises
The Ham Shack
DenTron
Doc's Communications
MFJ Enterprises

REPEATER JOURNAL

CVRA-SouthEastern Repeater Association, Inc.

MAY - JULY 1982 "IN OUR 11th YEAR" VOLUME 11, NO. 2

ORGANIZED 1971

Journal Staff

EDITOR & PUBLISHER
Wayne C. Williams, K4MOB
600 Lakedale Road
Colfax, N.C. 27235
(919) 993-5881

CONTRIBUTING EDITOR
Michael Williams, KC4AO
125 Grandin Court
Danville, Va. 24541
(804) 793-8302 (Wkends)

ADV. & SALES MANAGER
Ken Holiday, WA4DYY
1923 Halifax Court
High Point, N.C. 27260
(919) 454-4845

CIRCULATION MANAGER
Jim Bartlett, KB4WD
4110 Summerglen Dr.
Greensboro, N.C. 27406

JOURNAL PRODUCTION

Typesetting by:
Mirror Graphics, Inc.

Camera Graphics by:
Piedmont Publishing Co.

Printing by:
Greensboro Printing Co.

Layout, Pasteup-Design
Wayne C. Williams, K4MOB

Other Journal Assistance:
Larry McLaurin, WB4VJE
Shirley Holiday
Gerry Williams
Carol Bartlett
David Ward, KA4LVO

Editorial Comment

Actually They Should Know Better . . .

I have received three different reports from three different states concerning Amateur violations, three differenct unrelated instances. The only coincidence is that in all cases the Amateurs were Advanced or Extra Class licensees. (We were provided with names and callsigns)

In one instance, two advanced class amateurs talked for a long period of time on what they though was a simplex frequency. What they didn't know was that almost a third of another State was listening to them. You see . . . they were simplexing on the INPUT of a repeater located on a nearby mountain, and this repeater was linked to another repeater 100 miles away on another mountaintop.

So a relatively harmless simplex QSO tied up two repeaters, disrupted a net for almost 15 minutes and made several dozen other Amateurs furious.

Fortunately the FCC was not called, and everyone just sat back and waited. The two Amateurs who talked on the "illegal" simplex frequency probably never know to this day what they had done.

Another instance, where this editor heard, two operators were simplexing on a 147 mhz frequency. What they didn't realize a local repeater also had an

Continued On Page 55

We Pay Our Way Just Like Anybody Else . . .

I'm not quite sure where the idea came from, but someone thought I as Editor and Publisher got a nice salary for my job with CVRA-SERA. After I quit laughing and picked up myself off the floor, I explained to the red-faced person that we don't receive salaries.

In fact, various officers, Directors and other appointees such as myself of CVRA-SERA have to pay our membership each year just like you do, so we can have the privilege of working free!

It's funny how these rumers get out. I remember one of our officers last year was dumfounded when someone accused him of using CVRA-SERA to further his business (he is a ham dealer). I know for a fact that this officer used his Amateur business postage, UPS, telephone, letterhead, and time to work for CVRA-SERA. I know for a fact he also never once turned in an expense report (we get reimbursed for postage and telephone).

CVRA-SERA Officers, Directors and/or appointees who do run amateur

Continued On Page 55

Officers & Committee

PRESIDENT
Don Morris AB4J
1928 Brookdale Ave.
Charlotte, N.C. 28210
(704) 552-2846

VICE-PRESIDENT
A. Carter Cogle K4ARO
1667 Varina Avenue
Petersburg, Va. 23805
(804) 733-8411

TREASURER
Raymond K. Adams, N4BAQ
5833 Clinton Hwy., Suite 203
Knoxville, Tenn. 37912
(615) 688-7771

SECRETARY
Maxine Barrett, N4ECA
Box 212, Hickory Rd.
Lookout Mt., Tn. 37350
(404) 398-3358

REPEATER MEMBERSHIP
(Owners & Rptr. Oper.)
Gerry Butts
CVRA FULL MEMBERSHIP
P.O.BOX 5655
Greensboro, N.C. 27403
(919) 993-5856

ASSOCIATE MEMBERSHIP
(Repeater Users)
Larry McLaurin, WB4VJE
CVRA ASSOC. MEMBERSHIP
P.O. Box 5655
Greensboro, N.C. 27403
(919) 273-3112

ASSOC. MBR. ASSISTANT
David Ward, KA4LVO
2698 Bethabara Rd. #3
Winston-Salem, N.C. 27106
(919) 924-0520

CVRA-SERA COMPUTER
Lindsay Cleveland, W4IZI
4412 Rustic Wood Drive
Stone Mountain, Ga. 30083

DIRECTORS - VICE DIRECTORS AND THEIR ASSISTANTS LISTED BY STATE ON BACK COVER

REPEATER JOURNAL

MAY - JULY 1982

In This Issue

Editorial Comment, Wayne C. Williams, Editor 1
CVRA-SERA Now Tax Exempt 3
West Virginia Director Resigns 3
The Contest To End All Contests 7
Ham Radio Goes To The World's Fair 11
Area Deaths 18
New Wide Coverage Repeater In Richmond Area 19
Call Sign Prefix Assignments 20
Technical - Automatic Repeater Sensitivity 23
CVRA-SERA Repeater Index By Frequency 28
Repeater Index By City 29-37
Where Do We Go From Here 38
Repeater Journal Advertising Rate Card 42
District Ramblings 43
1982 Charlotte Hamfest-Revisited 46
Some Contesting Hints on HF 53
Coming Events - Hamfest Calendar 54
Classified Advertising 54
T-MARC, Md., Del., D.C. Repeater Index 56
Advertisers Index 56

SPECIAL NOTICE: Associate Membership deadlines are now on the 15th of the month preceding months of publication (Jan. 15, Apr. 15, July 15 and Oct. 15.) Persons joining or renewing must have their application into the Greensboro P.O. Box by those deadlines to receive the next upcoming Journal. Memberships received after deadline will not receive a REPEATER JOURNAL until the next issue comes out some 3 months later. Memberships received at hamfests will receive a current REPEATER JOURNAL as long as supplies are available.

The CVRA REPEATER JOURNAL is published quarterly, during the months of February, May, August and November of each year and mailed free to members of CVRA-Southeastern Repeater Association, Inc. Permission is granted for use of CVRA REPEATER JOURNAL material, providing credit is given. The JOURNAL will swap newsletters with other Repeater Councils and News organizations on request. The CVRA REPEATER JOURNAL press run is 4,200 copies with circulation in excess of 3,600 copies and is entered as Third Class Mail at the Post Office in Greensboro, N.C. The Full and Associate Membership mailing addresss is CVRA-SERA, P.O. Box 5655, Greensboro, N.C. 27403. All news and Newsletter exchanges should be mailed to the Editor and Publisher: Wayne C. Williams, K4MOB, 600 Lakedale Road, Colfax, N.C. 27235.

CVRA-SERA NOW TAX EXEMPT

Ray Adams, CVRA-SERA Treasurer was notified in late March that our organization had been approved by the Internal Revenue Service as a tax exempt, non-profit organization.

This was a status we had been working for several years. It was not until Ray, who is a CPA in Knoxville, Tn. took over the duties and the process where several others had tried and given up in frustration. Ray said he spent over 175 hours working up the briefs and papers necessary for the filing.

Finally this reward was realized as we finally achieved the non-profit status.

I asked Ray to write us a letter describing what had to be done. He did it, and although rather lengthy because it covers so much material we are publishing it in hopes that some other club or organization may benefit. (Editor)

WHAT IS A NON-PROFIT CLUB

—by Raymond Adams, N4BAQ
CVRA-SERA Treasurer

Generally speaking, a club may operate as an unincorporated association, in which the members simply get together and decide they want to be a club and proceed to operate with whatever degree of organization they choose; with or without officers, with or without bylaws, etc.

I don't care for this type of organization and am hesitant to belong to one, as it is legally almost paralell to a partnership in that each member is exposed to the legal liability of any other person's negligence when that person is engaged in a function of the club, without regards as to whether the other person is or is not a club member. I don't relish losing my home because some drunk, not even a member of the club, hits a school bus while going after some field day supplies and I'm not even at field day. Sounds like a far-fetched situation, but it COULD happen.

All states have provisions for formation of Corporations for this, and other, situations. Tennessee calls it a Non-Profit Corporate Charter, North Carolina calls it "Articles of Incorporation," other states use different terms with substantially the same meaning. In both Tennessee and North Carolina, State filing fees are five dollars and then must be made a public record by recording with the Register of Deeds in ANY county in the state at an additional cost of seven dollars. A quick phone call to the Secretary of State in your State capital will probably provide forms; all you need do is fill in the blanks. An attorney can handle this in deft manner, but is not an absolute requirement. That twelve bucks is an awfully cheap insurance policy. Virtually all states require all corporation to have officers, directors and bylaws. Good bylaws will name a **particular** version of parliamentary procedures to govern conduction of business at club, directors, and possibly committee meetings. Bear in mind that Parliamentary procedure was written primarily to guide legislative bodies and have been conveniently grabbed as a handy tool for use in an organization utilizing a democratic process. Accordingly, nothing irritates me more than to see an educated idiot, imminently qualified in legal matters by a full PHD in Theology dogmatically insisting on a corporate Constitution. GOVERNMENTS have constitutions, corporations do not, and in my opinion, neither should unincorporated associations.

Whether or not the club holds a non-profit corporate instrument has absolutely no bearing on your clubs reporting requirements to the Internal Revenue Service (federal laws apply here, the corporate instrument is a State critter and cuts no ice with IRS). Under current regulations, a non-profit group does not need to report to IRS in any manner or at any time (unless it has employees or other circumstances not envisioned by the author to apply to an amateur radio club) until its gross receipts reach $5,000.00 average per year for a three year period. Operating under this provision causes no problems, but provides no benefits either. Contributions to or on behalf of the club are

Continued On Page 24

JOURNAL REPEATER INDEXES NOW AVAILABLE ON CASSETTE

Bill Lenfestey, N4FQR told the Journal in a letter that he now has the February Journal repeater indexes by frequency and by city & State.

The material for the visually handicapped or any other interested parties is on two cassettes recorded two tracks at 1-7/8 IPS. Anyone desiring copies of the index may write: Metroliner Association For The Blind. Attn: Carol Benson, 704 Louise Ave., Charlotte, N.C. 28204. Cost is around $2.00.

DIRECTOR RESIGNS

Mike Palmer, K8LG has resigned as West Virginia's first Director of CVRA-SERA. Palmer cited in a letter to president Don Morris that he had overextended himself in his Amateur activities and needed to take more time for himself. He is an officer in the local club, an officer in the West Virginia State Radio Council, a member of AREC, and trustee for two repeaters.

He also said he had been unable to travel around the State for hamfests and other CVRA-SERA activities like he wanted to do.

President Morris, unavailable at press time will probably appoint a new Director for West Virginia soon.

Karl Morris, WB8GDY, presently holding the elected office of Vice-Director if according to usual practice will step into the office of Director, if it is his desire. Morris has been quite active in CVRA-SERA activities and has attended all annual meetings. Karl represented West Virginia to CVRA-SERA two years ago when they were in the process of organizing into a District.

In the interium, correspondence, or requests for frequency coordination should be sent to Karl Morris, WB8GDY, his address appears on the back cover of the Journal.

COMING UP NEXT ISSUE!

25 years in pictures and stories. The Shelby Hamfest will be our Cover Feature in the August Repeater Journal. Ole-timers will be sending us tidbits and highlights of years past and the Shelby Radio Club is providing us many outstanding pictures from years past. Should be good reading. Look for "Shelby-25 Years And Still Young" in the August Repeater Journal.

COME SEE US!

Our New, Better and Larger Location

"1039 LATHAM STREET"

STILL ON CHERRY ROAD, AT CORNER OF LATHAM

OVER 5,000 SQUARE FEET OF SHOW ROOM AND WAREHOUSE

MORE ROOM TO SHOW YOU ALL OUR AMATEUR EQUIPMENT LINES AND APPLE COMPUTERS

AUTHORIZED ICOM SERVICE CENTER

G.I.S.M.O.

1039 LATHAM STREET
ROCK HILL, S.C. 29730

ORDER TOLL FREE
800-845-6183

G.I.S.M.O.

(803) 366-7157

1039 LATHAM STREET
ROCK HILL, S.C. 29730

Featuring

KENWOOD

YAESU

ICOM

TEN-TEC

Rohn

TEMPO

BIRD

Larsen

DRAKE®

HUSTLER

AEA

cushcraft

IN ADDITION TO THE PRODUCTS LISTED ABOVE, WE ARE ALSO FACTORY AUTHORIZED DEALERS OR DISTRIBUTORS FOR **B & W, UNIVERSAL TOWERS, BERK-TEK CABLES, BENCHER PADDLES,** THE NEW **CES DIALER** AND MANY OTHER ACCESSORIES. OUR SERVICE SHOP, STAFFED BY FIRST PHONE, EXTRA CLASS TECHNICIANS, OFFERS EXPERT SERVICE ON ALL MAKES AND MODELS AND FACTORY AUTHORIZED SERVICE ON SWAN, YAESU AND KENWOOD PRODUCTS.

73, THE GISMO GANG

SERVICE DEPARTMENT CALL 803-366-7158

ORDER TOLL FREE!

800-845-6183

FOUNDATION OF AMATEUR RADIO TO AWARD SCHOLARSHIPS

(Special to the Repeater Journal)

The Foundation for Amateur Radio, Inc., a non-profit organization with headquarters in Washington, D.C., plans to award nine scholarships for the academic year 1982-1983. The Foundation, composed of fifty local area amateur radio clubs, fully funds two of these scholarships from the proceeds of the Gaithersburg (MD) Hamfest. It administers, without cost to the donors, two scholarships for the Quarter Century Wireless Association and one each for the Richard G. Chichester Memorial, the Radio Club of America, the Young Ladies' Radio League, the Edmund B. Redington Memorial and the Amateur Radio News Service. The last named award is new this year.

Radio Amateurs holding at least an FCC General Class license or equivalent may compete for one or more of these awards if they plan to pursue a full-time course of studies beyond high school and are enrolled or have been accepted for enrollment in an accredited university, college or technical school. The scholarship awards range from $300 to $900, with preference given in some of them to residents of specific geographical areas or the pursuit of certain study programs.

Additional information and an application form can be requested by a letter or QSL/postcard, postmarked prior to May 31, 1982 from:

Hugh A. Turnbull, W3ABC
6903 Rhode Island Avenue
College Park, Maryland 20740

The FOUNDATION is devoted exclusively to promoting the interests of Amateur Radio and to the scientific, literary and educational pursuits that advance the purposes of the Amateur Radio Service.

DURHAM (NC) HAMFEST MAY 15

The Durham FM Association presents it's 1982 Durhamfest on Saturday, May 15th at the South Square Mall in Durham, N.C.

The Mall will be open for shopping, Restaurants, movies and Video game land. Hamfest facilities are under large covered parking deck, out of the weather. This hamfest changing to one day this year after having two day affairs over the past years will have extensive ladies programs, door-prizes and drawings. For further information, write DFMA, P.O. Box 8651, Durham, N.C. 27707. Talkin is on 825-225.

The Contest To End All Contests!

REPEATER JOURNAL CONTEST WORTH OVER $700

—by Wayne C. Williams, Editor

The REPEATER JOURNAL Staff, on behalf of CVRA-Southeastern Repeater Association, is proud to announce the "The Great 1982 Repeater Journal Santec Give-A-Way."

As the name of the contest implies, we are giving away not one but TWO new Santec ST-144 2-meter handheld radios, each valued at $359.00. The new radios will be given away at two drawings, one to be held June 6th and the other September 6th.

To be eligible to win, one has to join or renew their Associate Membership in CVRA-SERA for one year. Eligible applications started on February 1, 1982 and will continue through September 1st.

Anyone who joined or renewed with a $3.00 membership fee since February 1 is eligible for the drawings. Person who joined or renewed on the special Charlotte Hamfest brochure application are also eligible.

For years we have tried to improve the quality of The Repeater Journal to entice more members into our organization. This has worked well to some extent, but we needed something big to entice more people to talk about joining, pass the word around, and make those applications start rolling in.

Now we think we have it! Your $3.00 membership fee not only helps support our worthwhile organization, gets you the Award Winning Repeater Journal for one year, but now makes you eligible for $700 in prizes.

We discussed this idea last year, but it never got off the ground. This year, thanks mainly to Tom Gentry, owner of Encomm, Inc., distributer of Santec Products we were able to get the contest moving. Tom was very gracious to CVRA-SERA in providing the two new Santecs at a price that no other Distributer, manufacturer or dealer was able to match with comparable equipment.

We then turned to our loyal supporting Advertisers who believe in CVRA-SERA and the Repeater Journal. We got 10 of our advertisers to donate funds to help defray the remaining cost of the handhelds and other costs.

With the support of Encomm and our advertisers, we were set to go. President Don gave us the go ahead and we began preparations in late February. Posters by the dozens were made, over 15,000 brochures have been printed and are being distributed by everyone we can find that will help, and many clubs are running courtesy ads announcing the contest in their local newsletters.

We haven't set a goal for new members as a result of the contest but we feel we will obtain a minimum of 1,000. A price being as low as it is, and the prizes as valuable as they are, we feel that ANYONE who hears about the contest, and thinks a moment, will rush to get their application and $3.00 associate membership fee to us.

We invite you to look in this issue of the Repeater Journal for a full page promotion announcing the contest officially, and the rules of the contest. We think it was designed to be fair for everyone, and everyone has a chance to participate, except of course CVRA-SERA officals and appointees.

Our special thanks to the Charlotte Hamfest, the Mecklenburg ARS for their cooperation in helping kick off the contest, the "Ole Virginia Hams", sponsor of the Manassas, Va. hamfest where the first drawing will be held on June 6th., and to the "Shelby Radio Club", sponsoring the Shelby hamfest, where the 2nd drawing will end the contest Sept. 6th.

To the dozens of clubs who participated in publishing our promotion, to many individuals who helped pass out brochures at hamfests, to all the other hamfests and clubs who cooperated with us in promoting the contest and to you our readers who support us in every way, we thank you.

MOVING? CALL SIGN CHANGE?

If you are moving or have moved recently, be sure to send us your new address so you won't miss a single issue of the Repeater Journal. The post office will not forward your Journal to you.

Send your new address change, along with your OLD address and be sure to include your callsign to: CVRA-SERA Associate Membership, P.O. Box 5655, Greensboro, N.C. 27403.

If you have recently received a new callsign and want it listed on your membership information, send us your callsign change, but be sure to send us your old call too. The computer lists members by their callsign.

We cannot be responsible for memberships who do not send address changes to us before Repeater Journal deadlines. If you didn't, chances are, you will not get a Journal.

THE GREAT 1982 REPEATER JOURNAL SANTEC GIVE-A-WAY

FILL OUT THIS SPECIAL APPLICATION AND MAIL TO CVRA-SERA ASSOCIATE MEMBERSHIP, P.O. BOX 5655 GREENSBORO, N.C. 27403

CVRA-SERA ASSOCIATE MEMBERSHIP CONTEST APPLICATION

YES - SIGN ME UP FOR THE AWARD WINNING REPEATER JOURNAL

Name _____ Date _____

Address _____ Call: _____

City: _____ Zip: _____

Phone: (____) _____ *Member of ARRL?* ___Yes ___No

Enclosed is: $_____ *SANTEC GIVE-AWAY*

($3.00/1 yr., $6.00/2 yrs., $9.00/3 yr.)

New _____ Renew _____

Mail to:

CVRA ASSOC. MEMBERSHIP
POST OFFICE BOX 5655
GREENSBORO, N.C. 27403

RJ 5-82

YOU COULD WIN!

ONE OF TWO

SANTEC ST-144

2-Meter Handhelds

TO BE GIVEN AWAY

JUNE 6, 1982

SEPT. 6, 1982

(Each radio valued at $359.00)

TO BECOME ELIGIBLE JOIN OR RENEW YOUR MEMBERSHIP IN CVRA-SERA FOR ONE YEAR

ONLY $3.00

The REPEATER JOURNAL wishes to thank the following organizations for their financial assistance in promoting this contest.

ENCOMM, INC. and Tom Gentry of Plano, Texas, Santec Distributor, for providing radios at a substantial savings.

For Donations toward Contest Expenses:

AMATEUR RADIO REPAIR CENTER
Winston-Salem, N. C.

DYNAMIC ENGRAVERS
Dunn, N. C.

DOC'S COMMUNICATIONS
Lookout Mountain, Tennessee

WEST ANTENNA SERVICE
Greensboro, N. C.

ELECTRONIC ACCESSORIES
Winston-Salem, N. C.

F & M ELECTRONICS
Greensboro, N. C.

HOLLIDAY STEEL RULE/DIE
Greensboro, N. C.

HOMETRONICS
Charlotte, N. C.

WILLIAMS RADIO
Colfax, N. C.

G.I.S.M.O.
Rock Hill, S. C.

REPEATER JOURNAL GIVE-A-WAY RULES AND REGULATIONS

ELIGIBILITY: Any licensed Amateur who joins CVRA-Southeastern Repeater Association, or renews his membership for one year.

INELIGIBLE: Repeater Journal advertisers, CVRA-SERA officers, Vice-Directors, appointees and their assistants are not eligible for drawing.

DATES OF PROMOTION: Associate Membership applications must be dated AFTER February 1, 1982. Entries will be taken until the drawing at the Shelby Hamfest, Sunday, September 6, 1982. NOTE: Applications received from the Charlotte Hamfest mailer will be accepted and are eligible.

DRAWINGS: Two drawings will be held. One Santec will be given away at the Manassas, Va. Hamfest on June 6. The 2nd Santec will be given away at the Shelby Hamfest, September 6, 1982. Applications submitted prior to the June 6th drawing will be eligible for BOTH drawings. Winner of the June 6 drawing will NOT be eligible for the September drawing. Applications received after the June 6 drawing will be eligible for the September 6 drawing.

MAIL-IN APPLICATIONS: All entries, in the form of CVRA-SERA Associate Membership applications must be submitted with $3.00 (cash or check) to: CVRA-SERA ASSOCIATE MEMBERSHIP, P.O. BOX 5655, GREENSBORO, N.C. 27403. DEADLINE for mailed entries is August 31, 1982. The Journal cannot be held responsible for late entries.

HAMFEST ENTRIES: Persons may submit applications in person at authorized CVRA-SERA booths at most hamfests in the area throughout the Summer.

APPLICATION FORMS: This special Associate Membership application or any facsimile may be used. Other applications from the Repeater Journal may also be used.

REMEMBER: You must JOIN or RENEW CVRA-SERA Associate Membership for at least one year between Feb. 1, 1982 and Sept. 6, 1982. The $3.00 membership fee must be submitted with application.

FULL MEMBERSHIP ELIGIBILITY: Although this is a contest involving mainly Associate Membership, the staff feels Full Members should also have a chance to win. Full Repeater Members who have already joined for 1982 may become eligible for the drawings by filling out an Associate Membership application with $3.00 and submitting it by mail. This extra membership will be placed in escrow under the applicants name to be used in one of two ways at the option of the applicant (1) As a 1983 Associate Membership, should the applicant not plan on Full Membership again in 1983. (2) As a down payment on 1983 Repeater Membership dues with $5.00 balance due for Full Repeater Membership on December 31, 1982. In other words, for a Full Member, present or future to be eligible for the drawings, an Associate Membership application with $3.00 must be submitted during the contest period. There can be NO exceptions.

FIRST PRIZE DRAWING SKED FOR MANASSAS HAMFEST JUNE 6

The Repeater Journal will give away the first of two new Santec ST-144 2-meter handhelds at the Manassas, Va. hamfest on June 6.

Persons who have joined or renewed their membership for 1 year since February 1st are eligible for the drawing. Larry, WB4VJE, Associate Membership Chairman, and Mike KC4AO, Virginia CVRA-SERA Director will be on hand for the festivities.

According to the rules of the contest participants in the contest DO NOT have to be present to win. The winner of the June drawing will NOT be eligible for the 2nd drawing in September. Everyone who is eligible for the June award will have their slips remain in the Jackpot for the September drawing, with the exception of the June winner.

CVRA-SERA Officers, Directors, Advertisers, Appointees and their assistants are Not eligible for the drawing.

Full Members of CVRA-SERA (repeater owners) to be eligible for either drawing, must have added one more year of Associate Membership to the organization and submitted an Associate Membership application. They then have the option of using the 1 year Associate membership at a later date, or using it as a down payment on their 1983 Full Membership. Either way, they must have sent in a $3.00 application to participate in the drawing.

The Repeater Journal staff wishes to thank the "Ole Virginia Hams" club for their assistance and cooperation for the drawing to be held at their hamfest.

Mail memberships must be in our Greensboro Post Office box by June 1 to be eligible for the 1st drawing. Persons attending the Manassas Hamfest on June 6 will be eligible for the drawing, if they sign up at the hamfest.

The Repeater Journal staff wishes to thank the "Ole Virginia Hams" club for their assistance and cooperation for the drawing to be held at their hamfest.

Contest and drawing is conducted by CVRA-Southeastern Repeater Association,

ARRL VIRGINIA STATE CONVENTION
AND
7TH ANNUAL TIDEWATER
HAMFEST - FLEA MARKET - COMPUTER SHOW
SATURDAY, OCTOBER, 9 AND SUNDAY, OCTOBER 10, 1982

VIRGINIA BEACH ARTS AND CONFERENCE CENTER

Tidewater Radio Conventions, Inc. 804 - 587-1695
1234 Little Bay Ave.
Norfolk, Virginia 23503

General Admission Tickets	$3.50 (good both days)
Flea Market Table Spaces	$5.00 one day, $8.00 both days
Commercial Table Space In Exhibition Area	$15.00 both days
Commercial Booth Space	$30.00 both days

HAM RADIO GOES TO THE 1982 WORLD'S FAIR

—by L. B. Cebik, W4RNL

The 1982 World's Fair in Knoxville, Tennessee will continue a tradition of amateur radio participation that began at least with the 1939 New York Fair, and perhaps even before. Every fair since then where hams have operated has seen improvements and innovations, and the May-to-October exposition in Knoxville is no exception. The new twists to serve visiting hams and the general public better than ever before go beyond the latest in solid state gear. They include new services, new forms of cooperation to make the station work, and new ham technology to be demonstrated to the public.

Through contractual arrangements, area hams will have a booth in the Knoxville Pavillion centrally located on the Fair site between the Sunsphere and the historic L&N station. The 105 square foot exhibition area will include a complete HF and 2 meter FM station for visiting hams, under the supervision of control operators organized to keep the station open thoughout the Fair's hours. A second station will permit public demonstrations of video based RTTY, slow scan television, and other facets of ham technology with visual interest. If the satellite launch this summer is successful, demonstrations using the new bird are a distinct possibility. Nets, contests, and other activities using the station and its twin towers, beams, and wire antennas are also planned.

Amateur involvement at the Fair, however, will be evident to visiting hams long before they reach Knoxville. A network of repeater monitoring stations will guide visitors through the area's mysterious streets, with the latest information on parking and other matters of interest to motorists. There will also be a 2 meter FM information station in at least semi-automatic operation to provide information to any station calling in.

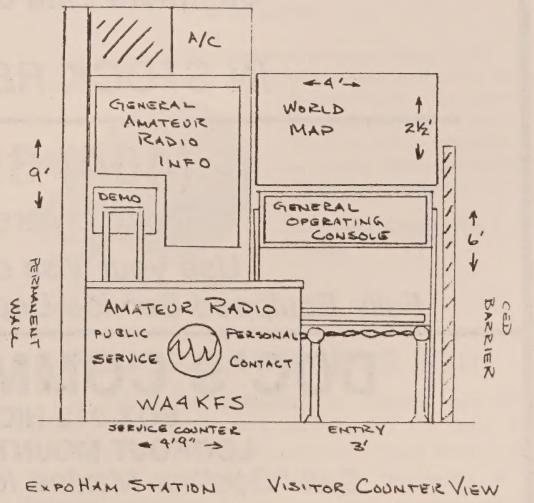
The station at the Fair site will be for more than just fun — although it promises to be that, too. Besides its public demonstrations, WA4KFS (Knoxville Fair Site) will be the focus of traditional ham message services, with some nets being controlled from there. Messages will move into the traffic nets by transfer to active traffic net stations via 2 meters, as well as 80 and 75 CW and phone, with a little supplement by foot. In addition, the station will provide a focus for backup and emergency communications, should amateur services be needed.

ORGANIZING A MASSIVE HAM EFFORT

Putting on a six month ham show of these proportions requires the talents, resources, skills, and cooperation of more people than can be found in a city even as large as Knoxville. The Tennessee Wireless Association, with president Ed Dunn, W4NZW, at the helm, was formed as a non-profit coordinating group with representation from every interested amateur club and group in the area. Through TWA, willing hams from as far away as Bristol and Chattanooga have played major roles in making the station and its activities a reality. Club contributions made possible a professional looking exhibit second to none at the Fair. As the needs of setting up the activities and exhibit emerged, so did skilled hams to take charge of special duties.

Manufacturers have been generous in loaning equipment to the station. Tennessee corporations Ten-Tec and KDK provided the HF and 2 Meter FM equipment. The HF stations will include Omni Cs, with VFOs, speech processors, antenna tuners, Hercules linears, and talking frequency counters. Texas Towers, Hy-Gain, KLM, and Times Wire supplied towers, antennas, rotators, and cable. Special demonstrations were made possible by

Continued On Page 13



DOC'S COMMUNICATIONS

FACTORY AUTHORIZED DEALER/DISTRIBUTOR FOR:

- **ICOM • TEN-TEC • HENRY RADIO**
- **BENCHER • B & W • MFJ • CUSHCRAFT**
- **HUSTLER • LARSEN • AVANTI**
- **ANTLER • ASTRON POWER SUPPLIES**
- **AZDEN • KDK • NYE-VIKING**
- **MIRAGE • OPTOELECTRONICS**

ICOM 720A/P515 ICOM 730

ICOM 2A/T Plus Accessories

Complete Line of Ten-Tec in Stock

IN STOCK READY TO SHIP!

---

(404) 398-3358

Phone orders Shipped UPS

Use your Visa or Mastercharge

Fully Equipped Service Dept. - First Class Technicians

DOC'S COMMUNICATIONS

BOX 212 HICKORY ROAD

LOOKOUT MOUNTAIN, TENN. 37350

Call "Doc" or Maxine for special price quotes

1982 WORLD'S FAIR

Continued From Page 11

SSTV, RTTY, Morse terminal, and other gear from HAL and Robot. S-F Amateur Radio Services provided three operating consoles, while MFJ supplied accessories. Under the coordination of Tom Salvetti, WD4FVU, the electronics of the station took shape early enough for TWA to provide some significant information to the pavillion designers to ensure optimal operating conditions with minimal chance for interference to other exhibits. W4RNL, L. B. Cebik, coordinated design of the overall station with attention both to operating convenience and to public interaction. The station carries the theme of "Amateur Radio: Public Service — Personal Contact." It will be accessible to handicapped hams as well as to non-handicapped amateurs.

Coordinating the operation of the station, including recruiting of control operators and establishing operator schedules, are TWA Secretary Jerry Goodchild, K4DZR, and station trustee, Chip Coker, KD4C. Anita Teffeteller, NG4J, has taken charge of message traffic from the World's Fair, while Harvey Cross, W4PKM, has arranged QSL services for both foreign and domestic hams; both have long experience in their areas of effort. Incidentally, an SASE for one of the specially designed World's Fair QSLs is a must courtesy for fast service.

Publicity and information, including contact with journals and organizations, has been assigned to Steve Kercel, AA4AK, who has published a newsletter for TWA since its inception. Since print work, whether in the form of station signs or public handouts, is a major effort, Paul Hamilton, WA4MQQ, has taken charge to provide TWA with the benefits of his knowledge and his contacts in the field. KA4RPA, Virgil Davis, has been exceptionally helpful in his efforts to coordinate the work of TWA with Fair officials and architects, and has been instrumental in the development of working arrangements which made the station possible.

Two meter FM activities have been led by Robin Rumbolt, WA4TEM, whose own repeater is a model of high technology design. W4BBB, the Radio Amateur Club of Knox County repeater on 147.90-147.30 has been the site of weekly meetings to work through details of setting up the operations and to provide information to interested listeners. As the opening day approached, the Wednesday night net expanded to include a Sunday evening session as well. Through the net and monthly board meetings open to all interested parties, the work of the group established a working station and all auxiliary activities in near record time, considering the wide area from which skills were drawn and the complexities of the integrating amateur radio with a World's Fair. Besides the newsletter and nets, visits by Board members to area club meetings kept all supporters apprised of the lates information — which had a habit of changing as Fair officials changed plans. Nonetheless, close and continuous coordination led to a fully operational station on time.

Continued On Page 14

STATE OF TENNESSEE

PROCLAMATION

BY THE GOVERNOR

WHEREAS, TENNESSEE'S MANY LICENSED AMATEUR RADIO OPERATORS CONTINUE TO DEMONSTRATE SKILL AND ABILITY IN THEIR VOLUNTEER PUBLIC SERVICE TO THE COMMUNITY, STATE, AND NATION; AND

WHEREAS, DEDICATED OPERATORS, LOCATED THROUGHOUT THE STATE, ARE ON CONTINUAL ALERT TO FURNISH VITAL EMERGENCY COMMUNICATIONS IN PERIODS REQUIRING CIVIL DEFENSE MEASURES, IN TIMES OF NATURAL DISASTERS, ACCIDENTS, OR THE NEED FOR MEDICAL ASSISTANCE; AND

WHEREAS, THESE OPERATORS ARE PREPARED TO GIVE OF THEIR TIME AND RESOURCES TO AID OTHERS IN COMMUNICATING WITH THEIR FAMILIES IN MANY INACCESSIBLE POINTS THROUGHOUT THE WORLD, AS WELL AS FROM SHIPS AT SEA; AND

WHEREAS, TENNESSEE'S AMATEUR RADIO OPERATORS REPRESENT OUR STATE BEFORE THE PEOPLE OF THE WORLD, AND HAVE WORKED TO PROMOTE INTERNATIONAL UNDERSTANDING AND GOODWILL;

NOW, THEREFORE, I, LAMAR ALEXANDER, AS GOVERNOR OF THE STATE OF TENNESSEE DO HEREBY PROCLAIM THE WEEK OF JUNE 21 - 27, 1982, AS

AMATEUR RADIO WEEK

IN TENNESSEE AND URGE ALL CITIZENS TO PAY APPROPRIATE TRIBUTE TO THE AMATEUR RADIO OPERATORS WHO SERVE THE STATE OF TENNESSEE IN TIMES OF NEED.

IN WITNESS WHEREOF, I HAVE HEREUNTO SET MY HAND AND CAUSED THE GREAT SEAL OF THE STATE OF TENNESSEE TO BE AFFIXED AT NASHVILLE ON THIS THE 3RD DAY OF MARCH, 1982.

Lamar Alexander

GOVERNOR

ATTEST

Gentry Crowell

SECRETARY OF STATE

RECORD NUMBERS JOIN

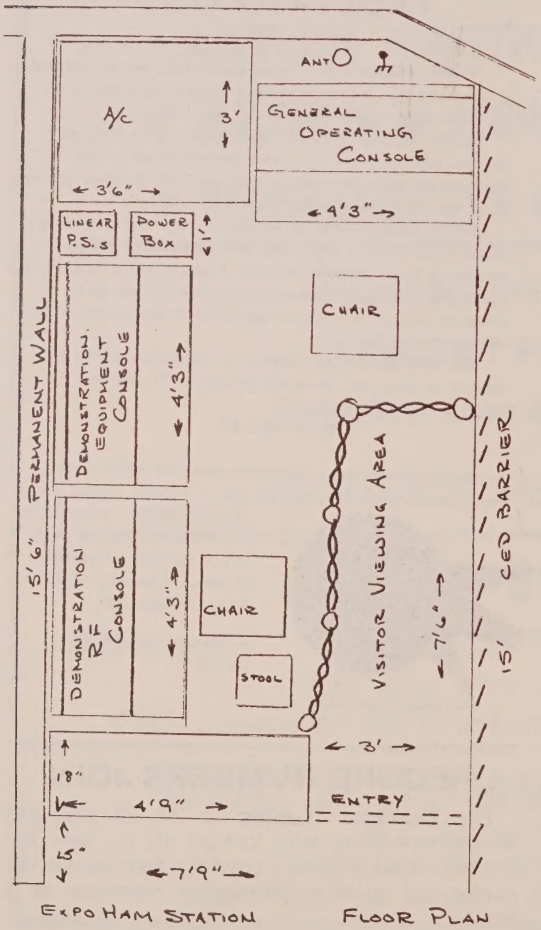
The Charlotte Hamfest in March provided atmosphere along with kicking off the new Repeater Journal contest to provide a good start in the number of persons joining or renewing at a hamfest.

The World's Fair Amateur Radio

The Board of Directors of The Tennessee Wireless Association, Inc., sponsoring organization of the World's Fair Station, met in January where the corporate charter was adopted, and a number of firm decisions were reached.

Association officials include the following: Chairman, Ed Dunn, W4NZW; Secretary-Treasurer, Jerry Goodchild, K4DZR; License Trustee, Raymond J. "Chip" Coker III, KD4C; Liaison to City of Knoxville, Virgil Davis, KA4RPA; Station Designer, L. B. Cebik, W4RNL; Equipment Agent, Tom Salvetti, WD4FVU; Newsletter Editor, Steve Kercel, AA4AK.

The station will be located on the World's Fair site in space provided by the City of Knoxville. It will operate for the entire duration of the Fair, May through October, 1982. Operating activities will be on display to the public and will include traffic handling, contesting, DXing, ragchewing, and demostrations of exotic modes such as RTTY, SSTV, and satellite communications. A three transmitter setup operating 160-2m, all modes, is envisioned.



The Tennessee Wireless Association is an independent entity, not associated with any specific club or individual. It exists solely to exhibit amateur radio to the public at the World's Fair, and is dependent upon the support of all area amateurs and clubs. Equipment will be donated or loaned by manufacturers, but there are significant costs to be covered. These include construction of station consoles, QSL cards, newsletters, and insurance. Volunteer help to construct, administer, and operate the station is also needed.

Contributions will be gratefully acknowledged with a certificate to contributors, and recognized in a display at the station. Clubs and individuals will be recognized in the following classes:

Club — Sustaining Clubs..... $100 or more
Club — Supporting Clubs..... Less than $100
Individual — Sustaining Patrons.... $10 or more
Individual — Supporting Patrons.... Less than $10

As the Association is currently being supported by small individual donations, seed money is urgently needed. Make your check payable to the Tennessee Wireless Association and send it to Jerry Goodchild, 3701 Warner Dr., Apt. 213, Knoxville, TN 37912.

Continued On Page 15

1982 ARRL DELTA DIVISION CONVENTION AND SIXTEENTH ANNUAL KNOXVILLE HAMFEST

The 1982 ARRL Delta Division Convention will be held in Knoxville, Tennessee on Memorial Day Weekend, May 22-23, 1982, as part of the sixteenth annual Knoxville Hamfest. The Knoxville Hamfest has always been one of Tennessee's largest hamfests, and this year we will have several attractions that will make the Hamfest the biggest and best in the state. In addition, The 1982 World's Fair will be held in Knoxville now through October 31. Since the Hamfest is on Memorial Day Weekend, this is a great opportunity to come to the Hamfest and stay to visit the Fair.

The Convention will be held at Bearden High School in Knoxville, the site of the '81 Hamfest. The building is fully air-conditioned and has a large exhibit area, as well as both indoor and outdoor flea market.

SPECIALS!

USED AND DISCOLORED 1/4-INCH GUY WIRE

500-foot coils
Continuous Length

$37.50 for 500-feet
$65.00 per 1,000-ft.

A Few Off Length Available
8¢ per foot

SAVE MONEY ON TV AND MONITOR CABLE

RG-62/AU - 8¢ foot

93 ohm, 22 Ga. Copper Clad
Steel Center Conductor

Will work with TV-Type
Coax connectors on those
Used with RG-59 cable.

SAVE! ELECTRICAL TAPE

3/4-In x 66-ft ROLLS ($1.49 Value)
Each $1.00 Pkg. of 10 - $7.50

USED OR SLIGHTLY DAMAGED TOWER TOPS

ROHN 25G &
CONSOLIDATED
SPECIAL $35.00 EA.

Can be used with Peak Roof
Mount for Rooftop Towers
Peak Roof Mounts In Stock!

WEST ANTENNA SERVICE

Route 6, Box 529-A
Greensboro, N.C. 27405

CALL TOLL FREE 1-800-334-4252
NC RESIDENTS 1-800-632-0389
LOCAL CALL 621-2473

SOME SPECIFICS FOR YOUR LOG

As you approach Knoxville on your way to the Fair and to WA4KFS, call up WA4TEM/R on 146.625 for the latest automated information. W4BBB/R (147.90-.30), WB4IOB/R (146.13-.73), and WA4TEM/R (144.73-145.33) will have monitor operators trained to provide detailed assistance in working your way into Knoxville and the Fair, and the other Knoxville area repeaters will host numerous hams with traditional East Tennessee hospitality.

When you reach the Fair site, look for the Knoxville pavillion, also known as the Health pavillion. The amateur station will be just inside the main entrance to the right. To be a visiting operator of WA4KFS, make your request to the helpful ham at the service counter and show your license. After instruction on the equipment, and perhaps some logging assistance to the visitor ahead of you, you can sit down and work CW or SSB around the world or close to home, or you can work the many area 2 meter repeaters. Your log page will contain not only your entries, but your signature as well, just for the record. The control operator on duty will assist you in every way possible; he will also be our watchdog to ensure that WA4KFS operations meet the highest standards of both FCC regulations and amateur ethics.

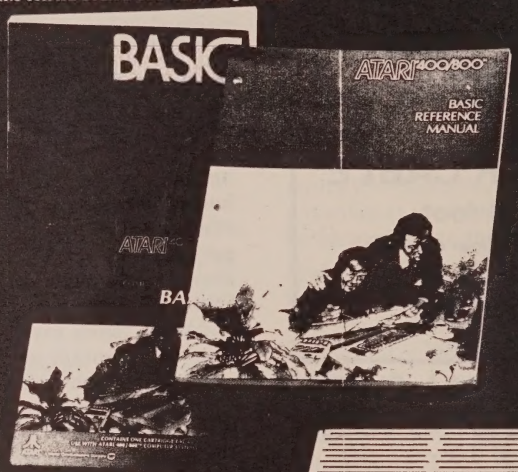
If you wish to work WA4KFS from home or on the road, you are in store for a number of pleasant surprises. For our special QSL, send an SASE to W4PKM, QSL Manager, Rt. 8, Box 460, Morristown, TN 377814. TWA will also sponsor a special certificate for working WA4KFS plus ten other Tennessee stations during the May 1 to October 31, 1982 period of the Fair. Send your log (GCR) and $2.00 to Sarah Hickey, N4EFA, 10712 Mercury Drive, Concord, TN 37922. The certificate is especially handsome and will look best on YOUR shack wall.

Although a large number of hams have been mentioned in this description of the 1982 World's Fair Amateur Radio Station, the number is small compared to all those who have already contributed their time and energy to making the station possible. And that number is small compared to the many volunteer control and monitor operators who will for six months donate their time and energy to making sure that visiting hams and others get the most from ham radio at the World's Fair. No one could list all who deserve thanks.

ATARI

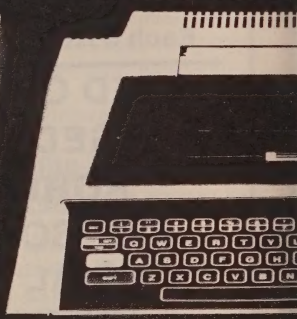
THE PROGRAMMER™

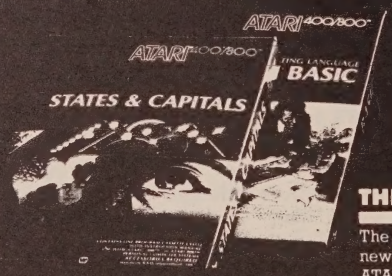
The Programmer helps you personalize your Basic Computer by teaching you to write your own programs. In fact, you can learn to write your own game programs! And you can write programs to solve business and science problems or even play computer music. The Programmer includes an ATARI BASIC Computing Language cartridge, the ATARI BASIC Reference Manual and the ATARI BASIC Self-Teaching Guide that teaches you how to program step-by-step. BASIC stands for Beginners' All-purpose Symbolic Instruction Code, and is designed to be easy to learn.



ATARIS & A
ALL IN ST

SEE ATARI IN ACTION
AT OUR STORE – IT'S GREAT!





F & M ELECTRONICS
3520 ROCKINGHAM RD.
GREENSBORO, N.C. 27407
(919) 299-3437
Frank & Mae Wyatt

THE EDUCATOR™

The Educator makes learning fun. You and your children can teach yourselves new subjects and skills. All right in your own home. The Educator comes with an ATARI 410™ Program Recorder to load your programs, an ATARI BASIC Computing Language cartridge and the States & Capitals program cassette. Just insert the cartridge, plug in the recorder, load the tape and learn! You'll find many other educational and self-improvement programs available in the ATARI Personal Interest and Education Assortments including: Energy Czar,™ Hangman, Conversational Spanish, French,* German,* and Italian,* European Countries & Capitals, Touch Typing, Statistics 1, An Invitation to Programming™ 1, 2* and 3,* Kingdom,™ Scram™ (A Nuclear Power Plant Simulation), Biorhythm, Music Composer,™ Blackjack, Graph It™ and Mortgage & Loan Analysis.**

*Estimated availability third quarter 1981.

**A Control Data CYBERWARE™ product manufactured under license from Control Data Corporation © 1980.

THE ATARI 400™ COMPUTER SYSTEM.

THE ENTERTAINER™

The Entertainer contains two of the world's most challenging computer games! Plus two joystick controllers. Just pop in the game cartridge, plug in the joysticks and you're all set for the ultimate in excitement and amusement. You'll find many other thrilling computer games in the ATARI Entertainment Assortment including: Asteroids,™* Basketball, Missile Command,™* Star Raiders,™ Super Breakout,™ 3-D Tic-Tac-Toe, Video Easel,™ Space Invaders** and Computer Chess!

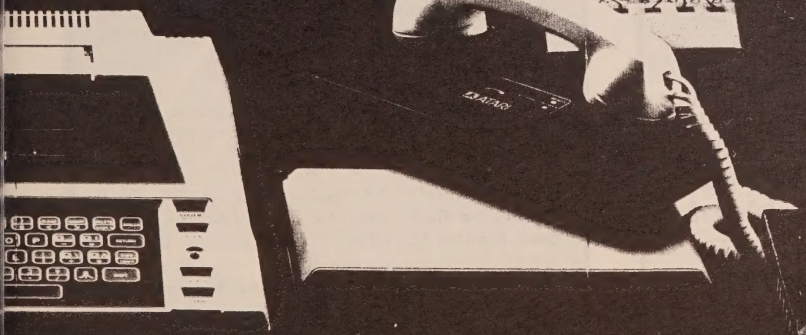
*Estimated availability third quarter 1981. **Trademark of Taito America Corp.

KANTRONICS INTERFACE IN STOCK!

ESSORIES
K NOW!

ATARI ACCESSORIES

Because the ATARI 400 Computer System has been designed to be used by just about anyone, the additional equipment and accessories have been designed to make the system completely flexible. A program recorder, printer, acoustic modem, interface module and controllers are all available. All expand the capabilities of The Basic Computer and all are easy to use and easy to afford.



THE COMMUNICATOR™

The Communicator brings the rest of the world to your living room. So, now you can have the latest stock market prices right on your television screen. Or access awesome amounts of information, news, games and electronic mail from information networks like CompuServe and Dow Jones. The Communicator includes the ATARI TeleLink™ I Cartridge, an ATARI 850™ Interface Module, and an ATARI 830™ Acoustic Modem. You also receive a free hour of connect time each to the Dow Jones Information Service and the CompuServe Information Service.

TECHNICIANS

Opening for experienced two-way radio technicians Stable company. Mild climate, salary, profit sharing, profit sharing trust. Call or write:

TWO-WAY RADIO OF CAROLINA
1932 WEST MOREHEAD STREET
CHARLOTTE, N.C. 28208
(704) 372-3444

SALES OPPORTUNITY

Sales Agent for General Electric manufacturer's representative selling communications systems. We have opening for sales professionals in local territories. Must have sales experience and be capable of opening new accounts. Salary plus commission for first three months, then liberal commission plan.

TWO-WAY RADIO OF CAROLINA

(704) 372-3444
Call Charles Lambert for Interview

Monday, Wednesday, 9 a.m. to 5 p.m.
An Equal Opportunity Employer

NC AMATEUR ELECTROCUTED WHILE RAISING ANTENNAS

Special To Journal by Phil Wicker, W4ACY

An Amateur Radio Operator of only two weeks was killed instantly in March when the antenna system he was raising accidentally touched 220-volt power lines.

Jack Javana Nichols, 47, KA4ZDN was pronounced dead on the scene after receiving a fatal shock from some 220-volt power lines running from his house to a utility building. Two other men working with Nichols were unhurt.

Nichols had received his novice license on March 9 and was killed on March 24. He was a lifetime Cumberland County, North Carolina native and was alreading studying for his General ticket. He had already made plans to go to Greensboro in June for FCC tests.

According to his wife, they thought the power lines had been disconnected years ago when they started moving the antenna up the side of the house.

Area Deaths

JOHN SABOT, WB4HGS, 71 of Greensboro, N.C. died at his home on Saturday, April 10 from an apparent heart attack. John, born in Pennsylvania had made his home in Greensboro.

• • •

ODA A. SMATHERS, K4TPK - of Charlotte, N.C., member of Charlotte Mecklenburg ARS died January 14, 1982.

• • •

DAVID WRIGHT, KA4HCZ - of Knoxville, Tn., member of Radio Amateur Club of Knox County died January 16, 1982.

• • •

JIM BLACKBURN, KA4SPO - of the Raccoon, Ky. area died February 12. "Big Jim" was a member and sponsor of the KA4BQH repeater.

• • •

RUSS TIPPETT, K4FPA - of Merritt Island, Fla., formerly of Greensboro, N.C. died March 15 after a long illness.

• • •

WAYNE MORGAN, WB8UAS - of Pageton, W.Va. died Feb. 12 of Kidney failure.

• • •

FRANK SHELTON, W8NYH - of Welch & Pageton, W.Va. died March 15. Frank in the past was instrumental in establishing the Virginia Sideband Net operating on 3947 khz. and the "Thumping Kegger" net.

NEW WIDE COVERAGE RICHMOND AREA REPEATER

—by Jim R. L. Fitzgerald, Jr. K4OJE

At 12:01 PM on Saturday, March 6, 1982, the 144.83/145.43 Metropolitan Repeater Association wide area repeater began operation from its site 811.5 feet up the Channel 35 TV tower.

The repeater is a dream come true. Although a small group of amateurs had studied the unusual opportunity presented and had arranged a co-ordinated frequency with CVRA-SE (who also coordinated with T-Marc) the first formal meeting of amateurs to organize and accomplish the construction occurred on December 30, 1981. The proposal was enthusiastically approved by the twenty-two amateurs involved and financial support to get it going was assured. The project was immediately commenced, engineering studies accomplished, materials ordered, insurance provided and a contract for our Super Stationmaster and 7/8" hardline installation entered into (with Southern Tower Company). We felt it urgently necessary to have our antenna and transmission line installed at the same time the TV transmission antenna was installed and this was scheduled for approximately February 1. (It was delayed about two weeks due to bad weather and deep mud). All this without waiting for the second meeting two weeks later when permanent officers were elected and the organization formalized. One of the very first actions was to become a full member of CVRA-SE.

METROPOLITAN REPEATER hardline, the 7/8-inch variety is reeled slowly by Rod Kieper, W4SQT and Dave Jewett, WA4HOT. With the antenna installed at the 800-foot level of the Channel 35 tower in Richmond, Va., things were coming together rapidly for the group. (Photo by K4OJE)

RIDING THE ANTENNA an unidentified crew member goes up the Channel 35 tower with the antenna for final installation. The Richmond Va. Metropolitan Repeater Assn. got their new machine on the air in early March. (Photo by K4OJE)

The repeater, which bears the call W4SQT/RPT, is located just west of suburban Midlothian on Route 60 West and the Super Stationmaster with a supporting damper arm to avoid wind movement is located 1121.5 feet above mean sea level.

Continued On Page 41

CALL SIGN PREFIX ASSIGNMENTS

(Adapted From W5YI Report)

Many readers have expressed an interest in learning the exact order of prefix issuance under FCC Docket 21135 – Amateur Licensing and Call Sign Assignment System. Here is the Call Sign Assignment order:

EXTRA CLASS:	**AA#A - AK#Z (Except: AH)** **KA#A - KZ#Z (Except: KH, KL, KP)** **NA#A - NZ#Z (Except: NH, NL, NP)** **WA#A - WZ#Z (Except: WH, WL, WP)**
ADVANCED CLASS:	**KA1AA - KZ1ZZ ("1 Land Only)** **KB#AA - KZ#ZZ (Except: KH, KL, KP)** **NA#AA - NZ#ZZ (Except: NH, NL, NP)** **WA#AA - WZ#ZZ (Except: WH, WP)**
TECH/GENERAL:	**N#AAA - N#ZZZ No Exclusions** **W#AAA - W#ZZZ No Exclussions** **K#AAA - K#ZZZ No Exclusions**
NOVICE CLASS:	**KA#AAA - KZ#ZZZ (Except: KH, KL, KP)** **WA#AAA - WZ#ZZZ (Except: WC, WH, WK, WL, WM, WP, WR, WT)**

The Amateur Call System allows for over 10 million call signs. Approximately 100,000 Extra, 500,000 each Advanced and General/Technician and 9 million Novice calls. Exceptions noted above are used for other purposes, foreign, club, RACES, etc. In addition to the above KC6, KG4, KG4R, KG6S, KR6, KX6, KZ5, KC4AAA to AAF and KC4USA to USZ. The WC, WK, WM, WR and WT (by three) calls are reserved for RACES, Club, Military Recreation, Repeaters and Temporary Licenses, although it appears they won't be used for this purpose in the future due to subsequent rulemaking.

HOW TO COMPUTE WHAT CALL YOU MAY GET

Persons going to upgrade and change calls have since the beginning wanted to know approximately what call they would be getting. Fred Maia, W5YI has worked it out after a years counting to give you some degree of accuracy.

Fred said he keeps a strict record of all call signs issued and he knows how many are issued over a year's time by radio district and license class. He updates this about once a quarter to reflect changes in amateur test taking habits. He then averages the figure out to determine how many calls are issued on an average monthly and apply this figure to the currently issued calls, plus a margin for the time it takes for the FCC to process an application, plus the difference in time between his previous FCC call sign information and todays date.

For example: Listed below are the call signs issued on February 1, 1982. We know it takes 3 weeks for the FCC computer to issue the call after the test is passed. So figuring say on May 1st, this is 3 months, plus 3 weeks for FCC time, so we have 3-3/4 months lead time which is applied to the last call sign which was issued on your particular class on February 1st. We find that 3-3/4 months times of 126.5 calls per month for **General** will advance us 474 calls past N4GJP which was the last Genreal call issued Feb. 1.

Due to delay time of listing call signs issued, February was the latest day we could give you in this issue of the Journal. However to keep down the counting, you can take a later Call Sign list for April or May when they come out, use the same averages listed below, and be relatively accurate within a few callsigns.

FOURTH CALL DISTRICT 2-1-82
EXTRA: NW4P (Ave. 27.1 per month)
ADVANCED: KE4MN (Ave. 91 per month)
GEN/TECH: N4GJP (Ave. 126.5 per month)
NOVICE: KA4YTR (Ave. 303.8 per month)

EIGHTH CALL DISTRICT 2-1-82
EXTRA: KT8L (Ave. 17.3 per month)
ADVANCED: KC8SO (Ave. 39.5 per month)
GEN/TECH: N8DPY (Ave. 71.7 per month)
NOVICE: KA8OWA (Ave. 150.9 per month)

So have fun trying to predict which you may get when you upgrade and Good Luck!!

HARMANS (MD) HAMFEST MAY 30

The Maryland FM Assn. of Harmans will present their 1982 hamfest on May 30 at the Howard County Fairgrounds. Prizes, commercial displays, food, drink and ample parking available. Talkin on 16-76 and 52 simplex. For further information write: John Elgin, WA3MNN, 5495 Apt. 2 Harpers Farm Road, Columbia, Md. 21044 (301) 596-3741.

— ANNOUNCING THE EIGHTH ANNUAL —

MANASSAS HAMFEST

AN ARRL APPROVED HAMFEST

Sunday, June 6, 1982

PRESENTED BY THE OLE VIRGINIA HAMS A.R.C., INC.
MANASSAS, VIRGINIA

Prince William County Fairgrounds

½ Mile South of Manassas, Virginia on Route 234

---

* FANTASTIC PRIZES AGAIN THIS YEAR *

1st PRIZE: BRANDNAME MULTIBAND H.F. TRANSCEIVER
2nd PRIZE: SYNTHESIZED 2M HANDHELD W/TT PAD
3rd PRIZE: 500MHZ DIGITAL FREQUENCY COUNTER

TAILGATERS PRIZE: $50 GIFT CERTIFICATE

*** * * * HIGH NOON SPECIAL DRAWING * * * ***
TWO EIMAC 8874'S
COURTESY OF VARIAN ASSOC., EIMAC DIV.

Plus Many More
PRIZE DRAWINGS EVERY HOUR STARTING 11:00 A.M. — TOP DRAWING AT 3:00 P.M.

GENERAL ADMISSION —
$4.00 per person at gate.
No advanced sales.
Children under age 12 admitted free.
Gates open at 8:00 a.m.

FOOD —
BREAKFAST and **LUNCH** MENUS
Available during the Hamfest
Moderate Prices
Consessioner: Parkwest Lions Club

TAILGATING —
$3.00 per space
in addition to general admission
Ample room — 25 Acres
Gates open at 7:00 a.m. for set-up.

SPECIAL ACTIVITIES —
YL Program
Crafts and Home Improvement Demonstrations
CW Proficiency Awards. Test your CW skill.

FACILITIES —
Indoor exhibit spaces available for dealer and manufacturers.

Mail requests for information to:
OLE VIRGINIA HAMS A.R.C., INC.
P.O. BOX 1255, MANASSAS, VIRGINIA 22110

hy-gain Amateur Radio Systems

AMECO

CUBIC COMMUNICATIONS, INC.

RADIO AMATEUR callbook

B&W

THE BIG SIGNAL UNADILLA W2AU BALUN

Electra

Nye Viking

((p)) PATHCOM INC.

the antenna specialists co.

THE OLD RELIABLE™ REYCO W2VS ANTENNA COILS

XITEX CORP.

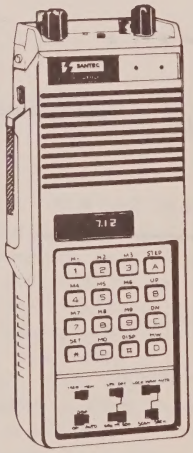
MFJ

We Have The

Philmore

SANTEC

HT-1200



- Service Guaranteed
- Sales New/Used Equipment
- Antennas/Tower Installations
- Construction Parts
- Consignment Sales
- Seriously interested in making a fair deal on your pre-owned equipment

—We're Serving the Carolina Ham

—Service With Pride—

Store Hours
Tuesday-Saturday
10:00—1800 Hrs.
CLOSED MONDAYS

73's
Jack Davis
WB4KOH
(Owner)

Home-Tronics

VISA master charge

AMECO Publications
ARRL Publications

(704) 334-7974

1217 The Plaza
Charlotte, N.C. 28205

—by Vern Epp, VE7ABK from HR Magazine

(Editor's note: We have had many requests for information regarding low sensitivity repeater receivers to prevent accidental keying of repeaters, until signals of enough quieting are received, then receiver sensitivity returns to normal sensitivity. We will be publishing stories of this nature in a continuing nature in the near future, to give repeater owners a variety of possibilities they may choose for their particular installation.)

Have you wanted a repeater to operate so that it will be somewhat desensitized until triggered? The circuit described here has been used commercially in a few applications, but I've never seen it used by Amateurs. One of the major problems with repeaters is that, being very sensitive (0.2-0.5 uv), they are prone to false triggering.

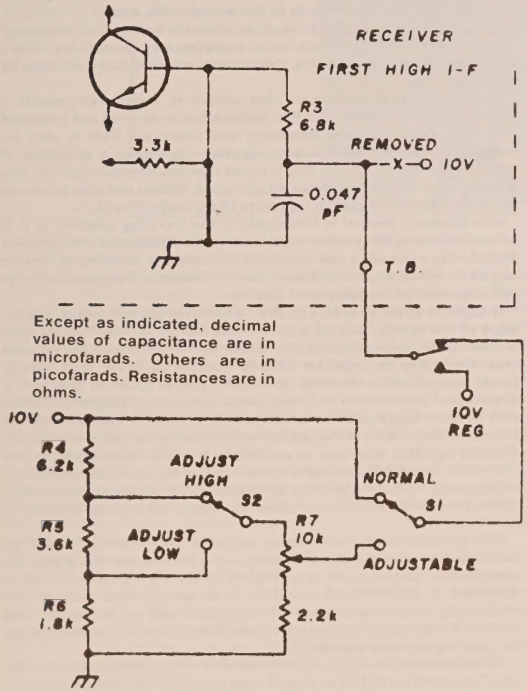


Fig. 1. Simple circuit for desensitizing repeater receivers for weak input signals.

Figure 1 is extremely simple. One of the i.f. transistors must be chosen for purposes of changing sensitivity by changing the bias voltage of the base. In the G.E. Master Line (ER-41-C), I found that the high i.f. transistor did the trick. R3 was fed 10 volts. The new circuit uses resistors R4, R5, R6, which compose a voltage divider. Potentiometer R7 selects a portion of the voltage depending on the setting of S2. With S1 in the normal position, 10 volts is fed to the receiver for maximum sensitivity. The relay operates with the transmitter on and changes receiver sensitivity to maximum with the transmitter on.

For example suppose you decide to operate your repeater with a sensitivity set at 0.6 uv. A weak, varying mobile signal might be coming in at 0.3 uv. It would not trigger the repeater until it reached 0.6 uv. If this signal faded, the repeater would stay at maximum sensitivity. It seems to me that, with the congested repeaters in some areas, this feature would be desirable.

WANT A CHANCE ON A FREE HANDHELD?

See our announcement this issue. You can Join or renew your membership in CVRA-SERA for only 1 year and be eligible for drawings for two brand new Santec ST-144 2-meter handhelds. Pass along the information to your friends. Let's everyone join or renew!

Actual Size
KA4LKF
JIMMY
SPIVEY'S CORNER, N.C.
Red/Wht.-Blk./Wht.-Blue/Wht.-Wood Grain/Wht.
$6.00-ppd. 1 Day Service
DYNAMIC ENGRAVERS
Rt. 5, Box 544
Dunn, N.C. 28334

CVRA-SERA NOW TAX EXEMPT

Continued From Page 3

NOT deductible on the donee's income tax return, the club cannot get a non-profit bulk rate mailing permit from the Post Office, in most states you cannot be exempted from state sales and/or use tax, etc.

The idea that money must be spent before years end comes from organizations who are denied a tax exemption in order to ensure they have no taxable income. There are absolutely no penalties whatsoever for a tax exempt organization accumulating assets of any kind, cash or kind. Penalties come with improper use of such accumulations. Most public hospitals hold an exemption. I saw one startle an architect by paying cash for a new wing, having factually reported to IRS on an annual basis while accumulating well into seven figures in cash. The exemption applies only to the purpose for which exemption was granted. A hospital's parking lot **is not** medically necessary for the treatment of the patient, therefore income generated from the parking lot is referred to in tax lingo as "Unrelated Business Income" and IS TAXABLE.

When and if you reach the $5,000.00 annual gross receipts level, you are required to ask IRS for two different determinations. The first, of course, is do you qualify under section 501(c) of the Internal Revenue Code of 1954 as an organization exempt from federal income tax on net income(if any, of course) of the club. The second determination is the type and classification of organization - there are only 23 of them ranging from cemetery companies to Labor Unions to Credit Unions to - oh, yes - there is one entitled "organizations organized and operated for religion, charitable, scientific, testing for public safety, literary, or educational purposes, or for the prevention of cruelty to children or animals" - good old 501(c)(3). That one carries ALL the goodies of tax treatment including the option to omit its employees from the social security system and is the one everybody wants and, of course, the one with which IRS is the stingiest. For openers, if you are incorporated, they will ask for the corporate charter. I recently saw one which stated the purpose of the Amateur Club to be "To enjoy for ourselves the benefits derived or to be derived from ham radio." Needless to say, the club is hovering under the $5,000.00 limit and has never even spoken to them Infernal Revenoors. It would almost certainly result in a classification as a 501-(c)(7), that's a SOCIAL CLUB with no tax concessions other than failure to pay corporate income taxes.

Several amateur organizations, including CVRA - Southeastern Repeater Association, Inc. have been able to sustain the argument and successfully claim to be an educational organization. Development of the state-of-the-art, remember? A west coast club has the experience of having been challenged, answered the challenge in federal court, and won the case! The league has available for the asking the exact purpose of the club as stated in that club's charter. If any lawyer should suggest correcting even any spelling errors he might spot, I hope you turn to a qualified attorney and get rid of your shyster. Precedent has been set; you will lose the benefit of it with ANY change in the charter wording, so far as purpose of the club is concerned.

The request for determination is made with a package 1023 for a 501(c)(3) a package 1024 for all other classifications, among other things, it is also going to ask for five years financial records (actual history or projected future years) any and all printed material, newsletters, etc., along with a plain language laymens' version of exactly how the organization operates. After umpteen letters, phone calls, and whatever, a determination letter just might be issued. If you are found to be TAX EXEMPT, you are now several cuts above a non-profit, and if you are exempt under 501(c)(3), you have available to your club all the concessions of tax matters Congress has ever provided.

Here is the laymen's explanation of just what CVRA-Southeastern Repeater Association, Inc. included in their package 1023 which finally gained exemption under 501(c)(3). Do not lose sight for even a second that you are in written communication with a bureaucrat, probably with at least a bachelor's degree in either accounting or law, and may well be either an attorney or CPA themselves; but they don't know a volt from a fuse about radio. I know it's lengthy, but I reproduce ti here to emphasize the detail you must cover.

"The Federal Communications Commission, persuant to authority of the communications Act of 1934 manages one of our most valuable natural resources, the radio frequency spectrum. Any transmitter in the United States legally operates only with the commission's permission, generally indicated by the issuance of a license in a particular service.

In most services, commerical broadcast, television, commercial two-way, general mobile, etc. the license specifies the exact physical location and frequency of the transmitter. Not so with the amateur service where the individual licensee may operate from any location within the fifty states or in international waters or airways with no further authorization necessary, and on any frequency authorized by the individual's class of license.

Above 29.5 Mhz frequency all amateur bands have areas in which repeaters are authorized. A repeater receives a transmitted signal on one frequency and automatically retransmits the same signal on another frequency at higher power and from a more advantageous location, thus increasing the range of communications by logarithmitic porportions.

By present regulation, any amateur holding a Technician or higher class license is legally authorized to install and operate a repeater at any location and on any authorized frequency he desires. One could readly see that if repeater # 1 receives on frequency A and retransmits on frequency B while repeater # 2 receives on frequency B and retransmits on frequency A, each repeater's transmitter would be received by the other repeaters receiver, creating an intolerable situation of perpetual mutual interference.

In the area served by this association, the following licenses are outstanding, per the 1981 callbook, published by Callbook, Inc.

	Technician	General	Advanced	Extra	Total
NC	1,252	2,564	1,742	528	6,086
SC	452	1,287	735	235	2,709
TN	1,479	2,148	1,688	465	5,773
VA	1,233	2,836	2,139	811	7,019
W VA	433	942	484	170	2,029
TOTAL	4,849	9,770	6,788	2,209	23,616

From the repeater listings in the accompanying copies of our quarterly journal it may be readily seen that the airways are quite well occupied by existing repeaters, particularly in the metropolitan areas.

A repeater's range will be determined primarily by locations, measured in height above average terrain. Some repeaters may dependably cover a thirty mile radius or even less. Others may measure their coverage by counting states.

If an individual amateur or club wishes to install and operate a repeater, where does he go to find information on existing and proposed repeaters, their location, frequency and coverage? This is vital information in order that the new repeater experience a minimum of interference, or worse yet, that it inject interference upon others. The state director of this association stands ready, willing and able to answer these questions in regard to repeaters in his respective state.

Our quarterly journal is invaluable to the traveling amateur as it is universally recognized as the most current and authoritative information available as to location and frequency of repeaters covering an area he may be traveling, as well as being a source of technical information in the self-education of the individual amateur.

It might be asked as to how all this benefits the general public. During times of emergency, amateurs have a long history of volunteering their services to provide communications into, out of, and within the affected area. By having the repeater already functioning (many with battery power automatically switched in if public power becomes lost) with a minimum of interference and a maximum of coverage, an amateur, often with no more equipment that a walkie-talkie can relay vital information out of an affected area to the appropriate authorities or for relay over any distance by other amateurs as conditions warrant. Most agencies and authorities have their own radio systems, however, by FCC specification of frequency on their respective licenses, they cannot communicate with other agencies. By placing a volunteer amateur with each, this limiation is removed.

It is not believe that advertising revenues of the journal should be considered unrelated business income as the journal is a vital part of the association's purpose and is published larely via volunteer labor as described in EXHIBIT 4A attached. It is not believed that present advertising rates would cover the increased cost of production and mailing if volunteer labor was not involved, as the editor is a craftsman in the printing trade by occupation."

Is tax exemption worth the effort for the small radio club? Probably not, but when you reach the $5,000.00 annual gross receipts level current regulations require you to apply for a determination so the option of whether or not to apply no longer exists. Once the gross receipts reach $10,000.00 annually, IRS requires an annual report, on form 990, designed to prove you are continuing to operate for the purpose for which you are exempt and that no individual, particularly an officer or director, is unfairly benefiting from the operation.

If your club starts in this direction, first carefully examine the wording of the charter, if incorporated, or the bylaws, Constitution or whatever instrument or instruments the membership recognizes as governing operations. Write the League for their package of material. In many cases, an amendment thereof will be needed to get the situation expressed in the proper perspective. The expressed reason that operating conditions and purposes of the club since organization has evolved to the point that a total re-statement of its very reason for existence has been known to win acceptance if handled by

Please Turn To Next Page

GREENEVILLE QUARTER GIG'ers

Meet the Greeneville, Tennessee Quarter GIG'ers. They don't plan on sharing the 220 mhz. band with ANY other service. Hanging left to right are, Larry, WB4NKM; Cliff, WB4NKL; Allen, KA4CBU and Papa Jack, WD4EXQ. (Editor's Note: I'm not sure I believe this!)

a skilled negotiator knowledgeable in both amateur radio club operations and the IRS regulations concerning tax exemption.

Another item in the charter or other governing instrument that the IRS will look at carefully is disposition of assets if and when the organization ceases to exist. I've seen charters that provided for the return of assets to the member who donated the item in question, with cash distributed to the members. One could readily see that a wealthy person could cause a tax exempt corporation to be formed, remain in control of it, then, after deducting vast amounts of contributions to it on his own tax return, causes it to disolve and return the mega-bucks to him.

The IRS required minor changes in the disolution procedures of CVRA - Southeastern Repeater Association article of incorporation prior to granting tax exemption so that it now reads:

"In the event of dissolution, the residual assets of the organization will be turned over to one or more organizations which themselves are exempt as organizations described in sections 501(c)(3) and 170(c)(2) of the Internal Revenue Code of 1954 or corresponding sections of any prior or future law, or to the Federal, State, or local government for exclusive public purpose.

Notwithstanding any other provision of these articles, this corporation will not carry on any other activities not permitted to be carried on by (a) a corporation exempt from federal income tax under section 501(c)(3) of the Internal Revenue Code of 1954 or the corresponding provision of any future United States internal revenue law or (b) a corporation, contributions to which are deductible under section 170(c)(2) of the Internal Revenue Code of 1954 or any other corresponding provision of any future United States internal revenue law."

This is the exact wording, as written by the exempt organizations group, Internal Revenue Service, Atlanta, and again should not be tampered with.

Few CPA's or attorneys are knowledgeable in tax exemption matters, however, most have research libraries in their offices for reference. To engage such a person on a professional basis is beyond the financial means of most clubs. If you should happen to have such a person as a dependable member, lean on him. Find out if his business is seasonal. If it is, at the start of his slow season, see if you can get him to accept the challenge of doing it for the club as his contribution to amateur radio. If you don't have these qualifications to call on, find someone with an analytical mind that is willing to spend several hours or days reading pamplets available from IRS, the material available from the League, and I would recommend you ask a local CPA firm to let you research the data in their library. It is better indexed for this purpose than a general law library as it deals with tax law only, and that's what we are concerned with here.

One way to put the bur under his saddle is to elect him treasurer. That makes him personally responsible as a corporate officer for seeing that it is done, and IRS provides penalties against both the organization and the responsible officer for failure to comply with the regulation.

I was not that knowledgeable in the procedures for obtaining a tax-exemption at the time you turkeys put the bur under my saddle; I had some reservations as to whether or not to even accept, but the timing was right as I was going into the slow season. I did a little research in the Association's records, League materials, "how to" pamplets published by IRS and my own tax library, and began the laborious task of reducing to written form an explanation in fine detail, including furnishing a copy of all printed materials, including journals back to 1974.

Eventually the IRS agreed CVRA-SOUTHEASTERN REPEATER ASSOCIATION, Inc. is exempt under 501(c)(3). I learned a lot in the process and feel I am a more qualified professional now than before I started. I can't tune a duplexer, trouble shoot the more complex circuits of a repeater, or even my low-band station, but hopefully in my own way I can make a contribution that will be of some value to the Association in particular, amateur radio - yes, even America itself - in general. After all, it is volunteer **efforts** by individuals, organized or otherwise, that brought down upon earth this thing we call America. If you are going to enjoy the benefits of ham radio, contribute something, technical, administrative, raw muscle, or as a last resort, financial to the general cause. Without some such contribution, what have you done to earn the right to enjoy the privileges.

MAYFEST 82 — MAY 30 AT ROANOKE

The Roanoke Valley ARC of Roanoke, Va. will hold its ARRL sanctioned Mayfest 82 at the Roanoke Civic Center on Sunday, May 30.

The exhibit hall with over 10,000 square feet of display space will be used again this year, with ample parking outside. Plenty of food and soft drinks are available. Special drawings and many prizes are a feature as well as new equipment dealers and flea market. For further information wriate: Roanoke Valley ARC, P.O. Box 2002, Roanoke, Va. 24009.

LINDSAY RETURNS TO THE SOUTH

—by Wayne C. Williams, K4MOB

Lindsay Cleveland, W4IZI, our CVRA-SERA computer operator reports he will be back in the South by the time you read this. He said he has been transferred to Atlanta, Ga. with Western Electric to help with installation of the new 3B type computer at the Atlanta Cable Works office.

Lindsay who is completing 8 years of faithful service maintaining membership lists and repeater indexes for CVRA-SERA said the changeover from the Chicago computer to the Atlanta computer will present no problems.

It was the summer of 1974 that Bill Parris of Charlotte, then Editor of the Journal, Membership Chairman and several other offices turned over Associate Membership to Lindsay.

"I remember Bill calling me on the phone," said Lindsay, "And telling me he was coming up to Burlington with my stuff." "He came with two small boxes which contained all the membership information and cards and mailing lists."

Lindsay said membership back then was about 300 and the mailing list was typewritten and Xeroxed on peel-off labels. After one Xerox label mailing, Lindsay put the membership on the computer at the Guilford Center where he worked, just East of Greensboro.

In 1978, he suggested to the new Repeater Journal Editor the possibility of putting Repeater indexes on the computer for the then three CVRA States. As years passed, 2 more districts came in, and those and 5 more states were added to the computer.

Today, the CVRA-SERA computer has 10 States of repeaters on it, and more are to be added soon.

"I love the job," Lindsay said, "It makes me feel still a part of all my ham friends in North Carolina working with CVRA-SERA."

Lindsay said he wasn't tired of the job and intended to stay around for a while longer working for CVRA-SERA. (Editor's Note: "Thank God!!!")

ARMY MARS REPEATERS 148.01-143.99

NORTH CAROLINA

Ahoskie (c)	Greenville
Asheville	Laurinburg
Charlotte	Pittsboro
Fayetteville (c)	Raleigh (c)

(c) Under Const.

SOUTH CAROLINA

Little Mtn.

FINANCIAL REPORT AS OF MARCH 31, 1982

REVENUES		
Advertising		$2,912.75
Associate membership dues		2,133.00
Full membership dues		824.00
		$5,869.75
EXPENDITURES		
Journal mailing	$ 374.71	
Journal printing	2,767.44	
Miscellaneous expenses	12.00	
Directors meeting	377.44	
Postage	48.28	
Printing	666.03	
Telephone	166.90	4,412.80
EXCESS OF REVENUES OVER EXPENDITURES		1,456.95
Balances, January 1, 1982		
Expenses advanced	$ 545.99	
Cash in bank	3,468.92	4,014.91
CASH TO ACCOUNT FOR		5,471.86
Less expenses advanced		700.00
CASH IN BANK		$4,771.86

COMPUTER LANGUAGE FROM TSRAC

BYTES: What a vampire does. CHECKSUM: What's left in your bank book. FLOPPY DISC: Lower back trouble. PROM: A special event for adolescents. ROM: A gypsy man. REGULATOR: E.G. – prunes or bran.

CHARLESTON HAMFEST JULY 24-25

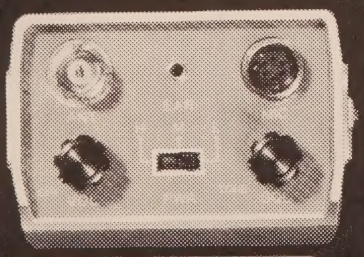
THE CHARLESTON ARS PRESENTS THEIR ANNUAL CHARLESTON HAMFEST ON JULY 24 AND 25 AT THE OMAR SHRINE TEMPLE. THE COMPLETELY AIR CONDITIONED BUILDING WILL FEATURE COMMERCIAL EXHIBITS AND FLEA MARKET. THE FAMOUS HOSPITALITY ROOM AT THE OMAR TEMPLE WILL BE HELD SATURDAY NIGHT FROM 7:30 TO 11:00 PM. PRIZES! TALK-IN IS ON 16-76. TWO GENERAL REPEATERS ARE ALSO AVAILABLE ON 34-94 AND 19-79. FOR MORE INFORMATION WRITE: CHARLESTON HAMFEST COMMITTEE, P.O. BOX 30643, CHARLESTON, S.C. 29407. CALL (803) 747-2324 OR 554-8058.

AIR FORCE MARS
143.45 - 142.15

TENNESSEE
Cleveland

SANTEC
ST-144/μP
Due to Demand For the ST-144 We are Selling Out Between Shipments Please Check for Availability
M1 M2 M3 SCAN
M4 M5 M6
M7 M8 M9
SET MO MW M

ST-144/μP, 2 Meter FM



SANTEC

It's Time!

■ The 10 frequencies that you put into the memories are stored with your repeater offsets, and you can have them scanned, searched or instantly recalled at the touch of a button. ■ Memory 1 even gets priority treatment in the memory scan mode. ■ That's timely complexity made amazingly simple: and the high power option of 3.5W (nominal) is simply the greatest reach you've ever held in your hand.

■ "Battery saver" function by the computer to hoard battery power when the frequency is quiet ■ Programmed limits for both ends of bandscan ■ Simplified frequency entry only by keyboard ■ Full capacity, low impedance audio output to drive an external speaker ■ Wide band span for MARS, CAP, AF MARS: 142.00-149.995 MHz ■ Quick-change 500mAh battery ■ Separate level controls for MIC, TT, PL and DEV ■ & so much more that we don't have space to mention ■ SANTEC hands it all

COMPARE SANTEC WITH ANY OTHER RADIO BEFORE YOU BUY.

ST-144 mP (2-METER) HANDHELD TRANSCEIVER

Regular $359.00

3 Power levels, LCD Readout, Microprocessor controlled, 16-position tone pad, scans, programmable, priority memory, 10 memories, CAP, MARS, 2-Meters, 24-hour clock. The most advanced handheld on the market today!

309.00

PLUS FREE! $11.95 CIG. LTR. CHARGE CABLE!

ST-7/T (440 MHZ.) HANDHELD TRANSCEIVER

Regular $339.00

The ever popular economy-priced 440 mhz. synthesized handheld, with thumbwheel tuning. Call frequency channel, 16-position tone pad, 3 power levels.

259.00

ADD $3.00 UPS SHIPPING PREPAID ORDERS
ADD $5.00 FOR C.O.D.-ORDERS UPS SHIPPING

PRICES SUBJECT TO CHANGE WITHOUT NOTICE
NORTH CAROLINA RESIDENTS ADD 4% SALES TAX

All Santec Handheld Models come with 16-position tone pad, 500 MAH Battery Paks, Rubber Duck, Wall Charger, Hand Carrying Strap, and earphone. Williams Radio has checked all functions on your radio, and charged the battery. Open the box, and you are ready to talk!

DISCOUNT ACCESSORY PRICES TO CUSTOMERS!

at the time you buy your radio, or anytime later.

WILLIAMS RADIO SALES

Santec Info Line 6 to 10 P.M. EST Only

WAYNE C. WILLIAMS, K4MOB
600 LAKEDALE RD., COLFAX, N.C. 27235
(919) 993-5881 6-10 PM EDT
(Recorder picks up 4th ring Other Times)

SEE ENCOMM ADS In Major Magazines for More Specs & Details
Or Write Williams Radio for Brochures

DISTRIBUTION OF REPEATERS BY FREQUENCY

The REPEATER JOURNAL Five State repeater index is the property of CVRA-Southeastern Repeater Association, Inc. Computerized lists are maintained and updated 4 times yearly for each issue of the REPEATER JOURNAL. Permission without writing is granted to individuals, clubs or organizations to use or reprint the REPEATER JOURNAL Repeater Index provided PROPER credit is given. The REPEATER JOURNAL cannot be responsible for incorrect listings or memberships. We make every attempt to keep our listings as accurate as possible with information provided to our organization. Changes or corrections to the repeater index must be sent to one of the five State Directors, or the REPEATER JOURNAL editor at their respective addresses listed in the JOURNAL.

The By-City Index Appears On Following Pages

TWO METERS

4.51 /5.11	HIGH POINT	NC
	NORTHWEST SECT.	SC
	KNOXVILLE	TN
4.53 /5.13	AHOSKIE	NC
	HODGES/GREENWOOD	SC
	CHATTANOOGA	TN
4.55 /5.15	CHRYVL/BKRS MT	NC
	KNOXVILLE	TN
4.57 /5.17	LOUDON CTY.	TN
	MURFREESBORO	TN
	BOLT MT	WV
4.59 /5.19	JASPER	TN
	PIKEVILLE(KY)	TN
	WHEELING	WV
4.61 /5.21	COL./GASTON	SC
	KNOXVILLE	TN
	LEBANNON	VA
4.63 /5.23	CHARLOTTE	NC
	MIDDLEBRO(KY/TN)	TN
4.65 /5.25	GREENSBORO	NC
	FISHERVILLE	TN
4.67 /5.27	HNDSNVL/PINCK MT	NC
	RALEIGH	NC
	WALNUT COVE	TN
	MANASSAS	VA
	PIE HORSE MT	WV
4.69 /5.29	CHARLOTTE	NC
	WEST JEFFERSON	NC
4.71 /5.31	ROCK HILL	SC
	ATHENS	TN
	LEXNGTN/COLE MT	VA
4.73 /5.33	FISHER PEAK	NC
	BAMBERG	SC
	KNOXVILLE	TN
	PARSONS	WV
4.75 /5.35	CHARLOTTE	NC
	BLAND	VA
	FALLS CHURCH	VA
4.77 /5.37	N. WILKESBORO	NC
	SAVANNAH	TN
	BECKLEY	WV
4.79 /5.39	SIMPSONVILLE	NC
	WIN-SAL/SAUTN MT	NC
	CHATTANOOGA	TN
	STANTONVILLE	TN
4.81 /5.41	WILLIAMSTON	NC
	GREENVILLE	TN
4.83 /5.43	NEWTON	NC
	NASHVILLE	TN
	GALAX	VA
	RICHMOND	VA
	MORGANTOWN	WV
4.85 /5.45	ANDSN MT/NEWTON	NC
	LINCOLNTON	NC
	NEWPORT	NC
	BENTON	TN
	WELCH	WV
4.87 /5.47	LILLINGTON	NC
	KNOXVILLE	TN
	MOUNTAIN CITY	TN
	KINGSTON/LICK KB	WV
4.89 /5.49	RALEIGH	NC
	MCMINVL/SHT MT	TN
	MEMPHIS	TN
	BLUEFIELD	VA
	BLUEFIELD	WV
5.33 /CKET	MEMPHIS	TN
6.01 /6.61	GREENSBORO	NC
	NEW BERN	NC
	BEAUFORT	SC
6.01 /6.61	CHELSEA	SC
	GRNVLE/CSRS HD	SC
	MYRTLE BEACH	SC
	CHATTANOOGA	TN
	NASHVILLE	TN
	BROMLEY MT	VA
	LYNCHBURG	VA
	SPENCER	WV
6.025/6.625	LAURINBURG	NC
	NEW MARKET	VA
6.04 /6.64	HENDERSONVILLE	NC
	RALEIGH	NC
	WINSTON-SALEM	NC
	SUMTER	SC
	CROSSVILLE	TN
	MADISON	TN
	MEMPHIS	TN
	FINCASTLE	VA
	MARION	VA
	RICHMOND	VA
	ELKINS	WV
	HUNTINGTON	WV
6.055/6.655	CONCORD/KANNAP.	NC
	ALEXANDRIA	VA
	ALTAVISTA	VA
6.06 /6.66	CHARLESTON	SC
6.06 /7.06	MADISON	WV
6.07 /6.67	BURLINGTON	NC
	FOREST CITY	NC
	COLUMBIA	SC
	BRISTOL	TN
	COOKEVILLE	TN
	LAFOLLETTE	TN
	NASHVILLE	TN
	BARREN SPRINGS	VA
	BRISTOL	VA
	LEXINGTON	VA
	WILLIAMSBURG	VA
	RAVENSWOOD	WV
6.085/6.685	GRIFTON	NC
	STATESVILLE	NC
6.085/7.955	MORGANTOWN	WV
6.09 /7.11	LOGAN	WV
6.10 /6.70	DUNN	NC
	GREENVILLE	SC
	LANCASTER	SC
	GREENEVILLE	TN
	MANCHESTER	TN
	MEMPHIS	TN
	UNION CITY	TN
	DANVILLE	VA
	NORFOLK	VA
	RAVENSWOOD	WV
6.115/6.715	SPRING LAKE	NC
	BLACKSBURG	VA
	STERLING	VA
6.12 /6.72	COAL MTN	WV
6.13 /6.73	RALEIGH	NC
	SALISBURY	NC
	WILMINGTON	NC
	N. AUGUSTA	SC
	SIMPSONVILLE	SC
	KNOXVILLE	TN
	LEBANON	TN
	MEMPHIS	TN
	HAMPTON	VA
	ALDERSON	WV
6.14 /6.74	FRANKLIN	NC
6.145/6.745	DILLON/PEE DEE	SC
	DYERSBURG	TN
	ROANOKE	VA
6.16 /6.76	ASHVL/MT PISGAH	NC
	GREENSBORO	NC
	GRIFTON	NC
	CHARLESTON	SC
	COLUMBIA	SC
	BRISTOL/HLSTN MT	TN
	NASHVILLE	TN
	CHARLOTTESVILLE	VA
	FOREST	VA
	HUNTINGTON	WV
	MORGANTOWN	WV
	WHEELING	WV
6.175/6.775	ELIZABETHTOWN	NC
	WYTHVL/SAND MT	VA
6.19 /6.79	LEVEL CROSS/GBO	NC
	ANDSN/SASFRAS MT	SC
	SUMMERVILLE	SC
	CHATTANOOGA	TN
	JOHNSON CTY	TN
6.19 /7.51	MEMPHIS	TN
6.19 /6.79	NASHVILLE	TN
	PIKEVILLE(KY)	TN
	CHESAPEAKE	VA
	FAIRFAX	VA
	OAK HILL	WV
6.205/6.805	GASTONIA	NC
	WASHINGTON	NC
6.22 /6.82	DURHAM	NC
	ROARING GAP	NC
	WILMINGTON	NC
	GRNVLE/PARIS MT	SC
	LAKE CITY	TN
	MEMPHIS	TN
	WINCHESTER	TN
	COVINGTON	VA
	WINCHESTER	VA
	CHARLESTON	WV
	CLARKSBURG	WV
6.235/6.835	ASHEVILLE	NC
	WADESBORO	NC
	HAZEL MT	VA
6.25 /6.85	GOLDSBORO	NC
	HICKORY/BRT. MT	NC
	REIDSVILLE	NC
	FLORENCE	SC
	LAURENS	SC
	COVE MTN/GTLBG	TN
	MEMPHIS	TN
	NASHVILLE	TN
	PORTSMOUTH	VA
	STAUNTON	VA
	BKLY/FLAT TOP MT	WV
	BUCKHANNON	WV
6.265/6.865	HIGH POINT	NC
6.28 /6.88	RALEIGH	NC
	SHELBY	NC
	COLUMBIA	SC
	SAVANNAH(GA)	SC
	BRISTOL	TN
	MEMPHIS	TN
	NASHVILLE	TN
	OAK RIDGE	TN
	BRISTOL	VA
	RICHMOND	VA
	SALEM	VA
	CHARLESTON	WV
6.31 /6.91	AHOSKIE	NC
	ASHVL/SPIVEY MT	NC
	FAYETTEVILLE	NC
	LEXINGTON	NC
	WHITE HALL	SC
	SAVANNAH	TN
	SHORT MT/SMTHVL	TN
	FAIRFAX	VA
	FARMVILLE	VA
	JONESVILLE	VA
	RIPPLEMEADE	VA
	COTTAGEVILLE	WV
	FAIRMONT	WV
	MCMECHEN	WV
6.325/6.925	CHARLOTTESVILLE	VA
	DANVILLE(DCC)	VA
6.34 /6.94	BURGAW	NC
	CHARLOTTE	NC
	DURHAM	NC
	MANTEO	NC
	CHARLESTON	SC
	COLUMBIA	SC
	GREER	SC
	KNOXVILLE	TN
	MEMPHIS	TN
	NASHVILLE	TN
	HAMPTON	VA
	LYNCHBURG	VA
	RICHMOND	VA
	ROANOKE	VA
	BECKLEY	WV
6.34 /6.94	NEW MARTINSVLLE	WV
	RICHWOOD	WV
	WEIRTON	WV
6.355/6.955	ROCKINGHAM	NC
6.37 /6.97	KINGS MTN	NC
	MT AIRY	NC
	SMITHFIELD	NC
	ANDERSON/LOCAL	SC
	FLORENCE	SC
	SAVANNAH(GA)	SC
	ALTAMONT	TN
	KNGSPT/BAYS MT	TN
	MEDINA	TN
	OAK RIDGE	TN
	MANASSAS	VA
	VIRGINIA BEACH	VA
	LOGAN	WV
	PARKERSBURG	WV
6.385/6.985	ALBEMARLE	NC
	ROANOKE/POOR MT	VA
6.40 /7.00	HIGH POINT	NC
	JACKSONVILLE	NC
	MARION	SC
	PICKENS	SC
	MEMPHIS	TN
	SUFFOLK	VA
	ST ALBANS	WV
6.415/7.015	BLUEFIELD	VA
	BLUEFIELD	WV
6.43 /7.03	ERWIN	NC
	ROCK HILL	SC
	LEXINGTON	TN
6.445/7.045	HOPE MILLS	NC
	ROBBINSVILLE	NC
	ARLINGTON	VA
6.46 /7.06	CHARLOTTE	NC
	ELIZABETH CITY	NC
	MEMPHIS	TN
	SOUTH BOSTON	VA
	PRINCETON	WV
6.475/7.075	BURLINGTON	NC
6.625/6.025	MARTIN	TN
6.655/6.055	BROWNSVILLE	TN
6.685/6.085	WAVERLY	TN
6.715/6.115	PULASKI	TN
6.865/6.265	FAYETTEVILLE	TN
	HORNBEAK	TN
6.895/6.295	HARTWELL(GA)	SC
6.915/7.315	HENDERSONVILLE	TN
7.135/7.735	ALAMO	TN
7.255/6.835	LEXINGTON	SC
7.30 /7.90	MONROE	NC
7.315/7.915	DALTON(GA)	SC
7.60 /7.00	HIGH POINT	NC
	BLONTVILLE	TN
	CHATTANOOGA	TN
7.60 /7.00	CLARKSVILLE	TN
	HAYSI	VA
	TERRA ALTA	WV
7.615/7.015	CHARLOTTE	NC
	SUMTER	SC
	NASHVILLE	TN
	FREDRICKSBURG	VA
7.63 /7.03	GREENSBORO	NC
	ROANOKE RAPIDS	NC
	MYRTLE BEACH, N	SC
	FAYETTEVILLE	TN
	HENDERSONVILLE	TN
	MEMPHIS	TN
	MORRISTOWN	TN
	SPRINGFIELD	TN
	WAYNESBORO	VA
	MULLENS	WV
7.645/7.045	STAUNTON	VA
	VIRGINIA BEACH	VA
7.66 /7.06	MACO	NC
	GREENEVILLE	TN
	SHELBYVILLE	TN
	RICHMOND	VA
7.675/7.075	BURLINGTON	NC
	GREENVILLE	SC
	KNOXVILLE	TN
	STAUNTN/AFTON MT	VA
7.69 /7.09	GREENVL/ESTN NC	NC
	BLAIRSVILLE(GA)	SC
	ORANGEBURG	SC
	SPARTANBURG	SC
	MEMPHIS	TN
	SPARTA	TN
	GALAX/BRIRP MT	VA
7.705/7.105	MARION/OLD FORT	NC
	MONROE	NC

	BEDFORD	VA
	BRIDGEPORT	WV
7.72 /7.12	GAST/SPCR MT	NC
	ROCKY MOUNT	NC
	MYRTLE BEACH	SC
	N. AUGUSTA	SC
	COLUMBIA	TN
	MEMPHIS	TN
	OAK RIDGE	TN
	CULPEPPER	VA
	BRIDGEPORT	WV
	DUNBAR	WV
7.735/7.135	BREVARD	NC
	CHERAW	SC
	GALAX	VA
7.75 /7.15	MORGANTON	NC
	RALEIGH	NC
	MONCKS CORNER	SC
	SIMPSONVILLE	SC
	MEMPHIS	TN
7.75 /7.15	NASHVILLE	TN
	OAK RIDGE	TN
	TAZEWELL	VA
	MCMECHEN	WV
7.765/7.165	GREENSBORO	NC
	GREENWOOD	SC
	HOHENWALD	TN
	NEWPORT NEWS	VA
	WARRENTON	VA
7.78 /7.18	MT AIRY	NC
	SANFORD	NC
	CAROWINDS	SC
	GOOSE CREEK	SC
	CLEVELAND	TN
	MEMPHIS	TN
	NASHVILLE	TN
	BARREN SPRINGS	VA
	PETERSBURG	VA
	LEON	WV
7.795/7.195	LAKE TOXAWAY	NC
7.81 /7.21	GREENSBORO	NC
	COLUMBIA	SC
	WEST BROW(GA)	SC
	COOKEVILLE	TN
	JACKSON	TN
	HIGH KNOB/WISE	VA
	MCLEAN	VA
7.825/7.225	HILLSBOROUGH	NC
	MORRISTOWN	TN
7.84 /7.24	CARTHAGE	NC
	EDEN	NC
	FOREST CITY	NC
	FRANKLIN	NC
	COLUMBIA	SC
	LANCASTER	SC
	GALLATIN	TN
	MEMPHIS	TN
	LYNCHBURG	VA
	PETERSBURG	VA
	WOODBRIDGE	VA
7.855/7.255	ASHEBORO	NC
	LUMBERTON	NC
	MARION	NC
	PARKSLEY	VA
	MARTINSBURG	WV
7.87 /7.27	BENSON	NC
	GASTONIA	NC
	WAYNESVILLE	NC
	CHARLESTON	SC
	LONG MT	SC
	SUMMERVILLE	SC
	GALLATIN	TN
	JOHNSON CTY	TN
	MEMPHIS	TN
	SAVANNAH	TN
	GUM SPRING	VA
7.87 /7.27	SCOTT DEPOT	WV
7.885/7.285	LYMAN	SC
	MARTINSVILLE	VA
7.90 /7.30	JACKSONVILLE	NC
	OXFORD	NC
	TUCKASEGEE	NC
	AIKEN	SC
	KNOXVILLE	TN
	MEMPHIS	TN
	NASHVILLE	TN
	BERRYVILLE	VA
	CLIFTON FORGE	VA
	FRANKLIN	VA
	HUNTINGTON	WV
7.915/7.315	UNION CROSS	NC
	CENTERVILLE	TN
	ALEXANDRIA	VA
7.92 /7.32	GRUNDY	VA
7.93 /7.33	FAYETTEVILLE	NC
	LENOIR	NC
	COLUMBIA	SC
	TOCCOA(GA)	SC
	COVINGTON	TN
	CROSSVILLE	TN
	KLMNRK/SALUDA	VA
	LEXNGTN/COLE MT	VA
7.945/7.345	SHELBY	NC
	GATE CITY	VA
	FRANKLIN	WV
7.95 /7.35	DANVILLE	VA
7.96 /7.36	BOONE	NC
	GREENVILLE	NC
	LUMBERTON	NC
	COLUMBIA	SC
	KNOXVILLE	TN
	MEMPHIS	TN
	NASHVILLE	TN
	PARIS	TN
	PARKERSBURG	WV
7.975/7.375	BURNSVILLE	NC
	HILLSVILLE	NC
	NASHVILLE	TN
	HILLSVILLE	VA
	LYNCHBURG	VA
	NEWPORT NEWS	VA
	GRAFTON	WV
7.99 /7.39	EDEN/STONEVILLE	NC
	SMITHFIELD	NC
	DAYTON/RHEA CTY	TN
	JONESBORO	TN
	MEMPHIS	TN
	NASHVILLE	TN
	PETERSBURG	VA

440 MHZ

9.25 /7.25	CHATTANOOGA	TN
9.25 /6.27	ALEXANDRIA	VA
2.25 /7.25	ROCK HILL	SC
2.50 /7.50	ROANOKE/POOR MT	VA
4.225/9.225	MANASSAS	VA
4.75 /9.75	FAIRFAX	VA
4.85 /9.85	ANNANDALE	VA
4.90 /9.90	WOODBRIDGE	VA
7.05 /2.05	MEDINA	TN
7.25 /2.25	COVINGTON	VA
	SOUTH BOSTON	VA
7.75 /2.75	ROANOKE	VA
7.80 /2.80	FRANKLIN	TN
	MEMPHIS	TN
7.90 /2.90	HIGH POINT	NC
8.40 /3.40	MEMPHIS	TN
8.50 /3.50	TYSONS CORNER	VA
8.70 /3.70	LOCUST	NC
8.75 /3.75	ALAMO	TN
9.00 /4.00	ARLINGTON	VA
9.05 /4.05	WAYNSBR/AFTON MT	VA
9.10 /4.10	HILLSBOROUGH	NC
9.10 /4.509	CHARLESTON	SC
9.10 /4.10	COLUMBIA	SC
9.15 /4.15	LEXNGTN/COLE MT	VA
9.25 /4.25	CHARLOTTESVILLE	VA
9.30 /4.30	KNOXVILLE	TN
	MEMPHIS	TN
	WAYNESBORO	VA
9.35 /4.35	LYNCHBURG	VA
9.40 /4.40	OAK RIDGE	TN
9.45 /4.45	LYNWOOD	NC
	GALLATIN	TN
	FALLS CHURCH	VA
9.50 /4.50	BRISTOL/HLSTN MT	TN
	KNOXVILLE	TN
	MEMPHIS	TN
	LYNCHBURG	VA
	PETERSBURG	VA
9.60 /4.60	ALEXANDRIA	VA
9.65 /4.65	GREENEVILLE	TN
9.70 /4.70	SALISBURY	NC
9.775/4.775	NASHVILLE	TN
9.80 /4.80	KINGSTON/LICK KB	WV
	MORGANTOWN	WV
9.85 /4.85	CHARLOTTE	NC
	PETERSBURG	VA
9.875/4.875	NASHVILLE	TN
9.90 /4.90	ASHVL/MT PISGAH	NC
	GREENSBORO	NC
9.95 /4.95	BENTON/BEAN MT	TN
	STAUNTON	VA
	VIRGINIA BEACH	VA
9.975/4.975	NASHVILLE	TN

WEST VIRGINIA REPEATERS

TWO METERS

ALDERSON	WR8AKZ	146.13	146.73	N	
BECKLEY	WD8POF	144.77	145.37	N	LA
BECKLEY	K8BO	146.34	146.94	N	O
BKLY/FLAT TOP MT	K8BO	146.25	146.85	N	A
BLUEFIELD	W8MOP	144.89	145.49		A
BLUEFIELD	WD8OGY	146.415	147.015		PA
BOLT MT	WB8LVH	144.57	145.17	N	L
BRIDGEPORT	WR8ALC	147.705	147.105	N	EA
BRIDGEPORT	K8VNQ	147.72	147.12		EAL
BUCKHANNON	K8WYH	146.25	146.85	N	
CHARLESTON	WR8AER	146.22	146.82	N	
CHARLESTON	WB8CQV	146.28	146.88	N	
CLARKSBURG	WB8ZVS	146.22	146.82	N	A
COAL MTN	WB8KAD	146.12	146.72	N	A
COTTAGEVILLE	WR8AKV	146.31	146.91	N	
DUNBAR	K8VKI	147.72	147.12		
ELKINS	WR8AOH	146.04	146.64	N	
FAIRMONT	W8SP	146.31	146.91		
FRANKLIN	W3RUA	147.945	147.345		
GRAFTON	K8VNQ	147.975	147.375		L
HUNTINGTON	WB8EZR	146.04	146.64	N	
HUNTINGTON	WR8AGH	146.16	146.76	N	A
HUNTINGTON	KA8BKX	147.90	147.30	N	
KINGSTON/LICK KB	W8FG	144.87	145.47		
LEON	WB8NMT	147.78	147.18	N	
LOGAN	WA8ZLR	146.09	147.11	N	
LOGAN	WR8ADD	146.37	146.97	N	
MADISON	KA8JYR	146.06	147.06	N	TA
MARTINSBURG	WB8VUZ	147.855	147.255	N	
MCMECHEN	WA8ULB	146.31	146.91		
MCMECHEN	N8CFX	147.75	147.15		
MORGANTOWN	K8LG	144.83	145.43		
MORGANTOWN	WB8YZT	146.085	147.955	N	
MORGANTOWN	W8CUL	146.16	146.76		
MULLENS	WR8AKX	147.63	147.03	N	LA
NEW MARTINSVLLE	WR8ABY	146.34	146.94	N	
OAK HILL	W8GH	146.19	146.79		A
PARKERSBURG	WA8CRW	146.37	146.97		PA
PARKERSBURG	WD8AXY	147.96	147.36		
PARSONS	K8VNQ	144.73	145.33		PAL
PIE HORSE MT	N8APH	144.67	145.27	N	A
PRINCETON	WB8NRK	146.46	147.06		A
RAVENSWOOD	WA8USO	146.07	146.67		
RAVENSWOOD	WA8USO	146.10	146.70	N	R
RICHWOOD	K8VKB	146.34	146.94		
SCOTT DEPOT	K8SLI	147.87	147.27	N	A
SPENCER	WA8SAK	146.01	146.61	N	
ST ALBANS	WB8GDY	146.40	147.00		
TERRA ALTA	WB8PHU	147.60	147.00		PA
WEIRTON	KC8JN	146.34	146.94		
WELCH	WB8SXZ	144.85	145.45		
WHEELING	W8YFX	144.59	145.19	N	
WHEELING	W8JDH	146.16	146.76	N	

220 MHZ

HUNTINGTON	KA8BKX	222.54	224.14	N

440 MHZ

KINGSTON/LICK KB	KA8EMX	449.80	444.80	N
MORGANTOWN	W8CUL	449.80	444.80	

SILVER WELD

SILVER BEARING SOLDER PASTE
CONTAINS 5% SILVER – 95% TIN
USE INSTEAD OF OLD FASHION TIN/LEAD SOLDER

MANY USES AROUND THE HOUSE AND IN THE HAMSHACK.

EXCELLENT FOR CIRCUIT BOARD CONSTRUCTION AND REPAIR.

USE FOR COAX CONNECTIONS

WIRE ANTENNAS.

$9.95 – 1/2-Ounce Syringe
$12.95 – 1-Ounce Syringe

- Eliminates the need for three hands
- Easy to use – No flux required
- Excellent affinity to most ferros and non-ferros metals
- Low melting point – melts at 430-degrees F.
- Can be worked with open flame, butane, propane, acetylene, Mapp gas, or soldering iron
- High tensile strength – up to 8 times stronger than lead solder
- Joints will not blacken or tarnish – Finish joint is bright silver
- Excellent conductivity – Antenna connections are stronger too
- Portable: Use anywhere a heat source is available

(Not for aluminum or white metals)

- **GET THE LEAD OUT . . . OF YOUR SOLDER JOINTS THAT IS**

SILVERWELD IS AVAILABLE FROM:
CHESNEY HARRIS AND ASSOC.
P.O. BOX 16612 AR
GREENSBORO, N.C. 27406

SEND CHECK OR MONEY ORDER
POSTAGE PAID
N.C. RESIDENTS ADD 4% SALES TAX
DEALER INQUIRIES INVITED

We Ship Within 24 Hours After Receipt of Order!

NORTH CAROLINA REPEATERS

TWO METERS

AHOSKIE	WB4YNF	144.53	145.13		A
AHOSKIE	WA4ZGQ	146.31	146.91		PA
ALBEMARLE	WA4LBT	146.385	146.985		
ANDSN MT/NEWTON	WD4LCF	144.85	145.45	N	
ASHEBORO	WD4AIB	147.855	147.255		PAL
ASHEVILLE	WA4QCO	146.235	146.835		A
ASHVL/MT PISGAH	WA4BVW	146.16	146.76		
ASHVL/SPIVEY MT	W4MOE	146.31	146.91		A
BENSON	WR4ARL	147.87	147.27	N	PA
BOONE	WA4KDB	147.96	147.36		
BREVARD	N4DJB	147.735	147.135		
BURGAW	K4LZY	146.34	146.94		
BURLINGTON	WR4AKY	146.07	146.67	N	
BURLINGTON	W4VGZ	146.475	147.075	N	EA
BURLINGTON	WA4HBQ	147.675	147.075	N	EA
BURNSVILLE	WA4LLR	147.975	147.375		A
CARTHAGE	W4NIW	147.84	147.24		EA
CHARLOTTE	W4BFB	144.63	145.23		
CHARLOTTE	WD4JWO	144.69	145.29		
CHARLOTTE	WB4HTR	144.75	145.35	N	
CHARLOTTE	WR4AEU	146.34	146.94		
CHARLOTTE	WR4ALO	146.46	147.06	N	A
CHARLOTTE	WB4KPF	147.615	147.015		PA
CHRYVL/BKRS MT	WB4UDS	144.55	145.15		
CONCORD/KANNAP.	K4CEB	146.055	146.655		A
DUNN	WB4FXM	146.10	146.70		
DURHAM	WA4WTX	146.22	146.82		
DURHAM	WA4BFT	146.34	146.94	N	A
EDEN	WA4ACP	147.84	147.24	N	
EDEN/STONEVILLE	WA4QBG	147.99	147.39		
ELIZABETH CITY	WA4VTX	146.46	147.06	N	A
ELIZABETHTOWN	N4DHW	146.175	146.775	N	
ERWIN	WR4ALY	146.43	147.03	N	
FAYETTEVILLE	WR4ANN	146.31	146.91		A
FAYETTEVILLE	W4LPL	147.93	147.33		
FISHER PEAK	WD4MDP	144.73	145.33	N	
FOREST CITY	W4TMT	146.07	146.67	N	A
FOREST CITY	WA4BKU	147.84	147.24	N	
FRANKLIN	N4AC	146.14	146.74	N	
FRANKLIN	WB4YAO	147.84	147.24		
GAST/SPCR MT	W4REW	147.72	147.12	N	A
GASTONIA	K4ZFD	146.205	146.805	N	L.
GASTONIA	WD4KGM	147.87	147.27	N	
GOLDSBORO	K4CYP	146.25	146.85		A
GREENSBORO	N4AZM	144.65	145.25		
GREENSBORO	K4SNI	146.01	146.61		A
GREENSBORO	WR4AOD	146.16	146.76		
GREENSBORO	WD4IPZ	147.63	147.03		PA
GREENSBORO	WR4AUA	147.765	147.165	N	
GREENSBORO	WR4ANL	147.81	147.21	N	
GREENVILLE	W4AMC	147.96	147.36		
GREENVL/ESTN NC	W4GDF	147.69	147.09		
GRIFTON	W4NBR	146.085	146.685		
GRIFTON	WR4ABP	146.16	146.76		O
HENDERSONVILLE	WB4YAO	146.04	146.64		L
HICKORY/BRT. MT	WR4ACM	146.25	146.85	N	
HIGH POINT	N4XO	144.51	145.11	N	C
HIGH POINT	KA4DHP	146.265	146.865		PA
HIGH POINT	K4AZA	146.40	147.00		LA
HIGH POINT	K4AZA	147.60	147.00		LA
HILLSBOROUGH	WA4WTX	147.825	147.225		A
HILLSVILLE	WD4BTS	147.975	147.375	N	A
HNDSNVL/PINCK MT	WA4KNI	144.67	145.27		
HOPE MILLS	WB4TRW	146.445	147.045	N	
JACKSONVILLE	WD4FVO	146.40	147.00		PA
JACKSONVILLE	WR4ATW	147.90	147.30	N	
KINGS MTN	WB4GXY	146.37	146.97	N	
LAKE TOXAWAY	WR4AGH	147.795	147.195	N	
LAURINBURG	K4QWK	146.025	146.625		
LENOIR	KN4K	147.93	147.33		
LEVEL CROSS/GBO	K4VUW	146.19	146.79		
LEXINGTON	K4IZM	146.31	146.91		PA
LILLINGTON	WA4FKI	144.87	145.47	N	
LINCOLNTON	WD4PLY	144.85	145.45	N	
LUMBERTON	KD4PI	147.855	147.255	N	RC
LUMBERTON	WR4BDQ	147.96	147.36		
MACO	WA4LED	147.66	147.06		
MANTEO	W4PCN	146.34	146.94		PA
MARION	WB4UCF	147.855	147.255	N	P
MARION/OLD FORT	KA4DEC	147.705	147.105		
MONROE	K4BGU	147.30	147.90	N	
MONROE	K4JCK	147.705	147.105		A
MORGANTON	K4RP	147.75	147.15		
MT AIRY	WA4ZAS	146.37	146.97		EA
MT AIRY	WA4CQK	147.78	147.18		
N. WILKESBORO	K4ITL	144.77	145.37		L
NEW BERN	WD4JMS	146.01	146.61		A
NEWPORT	K4GRW	144.85	145.45		A
NEWTON	N4AWV	144.83	145.43	N	P
OXFORD	WA4JCS	147.90	147.30		A
RALEIGH	N4BEA	144.67	145.27		A
RALEIGH	N4BXF	144.89	145.49		PA
RALEIGH	W4DW	146.04	146.64		A
RALEIGH	K4BWC	146.13	146.73		A
RALEIGH	K4ITL	146.28	146.88	N	
RALEIGH	K4ITL	147.75	147.15	N	PA
REIDSVILLE	K4YFT	146.25	146.85		
ROANOKE RAPIDS	K4PUV	147.63	147.03		
ROARING GAP	WB4PZA	146.22	146.82		
ROBBINSVILLE	WB4ZQB	146.445	147.045	N	L
ROCKINGHAM	WA4ULA	146.355	146.955		
ROCKY MOUNT	WB4WAA	147.72	147.12		A
SALISBURY	W4EXU	146.13	146.73		
SANFORD	WB4EJJ	147.78	147.18		A
SHELBY	WD4DJA	146.28	146.88		
SHELBY	WD4DJA	147.945	147.345		A
SIMPSONVILLE	WA4PPV	144.79	145.39	N	P
SMITHFIELD	KD4JQ	146.37	146.97		A
SMITHFIELD	W4MKL	147.99	147.39		PA
SPRING LAKE	WR4BCA	146.115	146.715	N	
STATESVILLE	AI4O	146.085	146.685		PA
TUCKASEGEE	W8OMV	147.90	147.30	N	
UNION CROSS	WA4RBW	147.915	147.315		A
WADESBORO	W4USH	146.235	146.835	N	
WASHINGTON	WB4GMI	146.205	146.805	N	
WAYNESVILLE	N4SM	147.87	147.27		PA
WEST JEFFERSON	WD4JWO	144.69	145.29	N	C
WILLIAMSTON	WA4TKJ	144.81	145.41	N	
WILMINGTON	N4WI	146.13	146.73		
WILMINGTON	WB4UNG	146.22	146.82		O
WIN-SAL/SAUTN MT	WB4KQN	144.79	145.39		L
WINSTON-SALEM	WA4GIC	146.04	146.64		A

220 MHZ

ASHEVILLE	NC4N	223.00	224.60		
ASHVL/MT PISGAH	WA4BVW	222.34	223.94		
CHARLOTTE	WB4KPF	223.08	224.68		LA
CHRYVL/BKRS MT	WB4UDS	223.20	224.80	N	
FAYETTEVILLE	W4EHF	222.42	224.02		
GREENSBORO	KZ4O	223.22	224.82	N	RL
HICKORY	WR4ACM	222.42	224.02	N	
HIGH POINT	K4AZA	222.32	223.92		LA
HILLSBOROUGH	WA4WTX	222.34	223.94		L
LINWOOD	KA4HUV	222.38	223.98	N	
LOCUST	WA4ZIA	222.40	224.00		
MORGANTON	WB4PML	223.36	224.96		
RALEIGH	WA4PEN	223.04	224.64	N	
ROCKY MOUNT	KA4DAP	222.36	223.96	N	
SALISBURY	W4EXU	223.16	224.76		
STATESVILLE	WA4PVI	222.70	224.30	N	

ROHN TOWERS AND ACCESSORIES

25-G STRAIGHT SECTIONS

We also have flat and sleeved top section, thrust Bearings, House brackets, short Base Sections, Rotor Plates, Guy Assemblies, 3/16 EHS Guy Wire, Cable Clams, Turnbuckles and other items.

ROHN TOP SECTIONS

If you have a 25-G Rohn Tower at the height you want, and do not have a top section, we have the new ROHN BAS-25-G cap section. It has a flat top, drilled for TB-3 bearing and a welded-in rotor plate. Length 20-inches.

OTHER TOWER ACCESSORIES

Aluminum mast — 2-in. OD 6061 tubing with ¼-in. wall.
12-foot lengths, 19 lbs — IN Stock
24-foot lengths, 38 lbs — Special Order

Touch-up rust spots on your tower and antenna bolts with RUST-OLEUM, Cold Galvanizing.
Large 20-oz. Industrial spray can $5.10
Mosley Penetrox grease — $1.29
Mosley Weather Guard Antenna Coat — 8-oz. can. $4.75

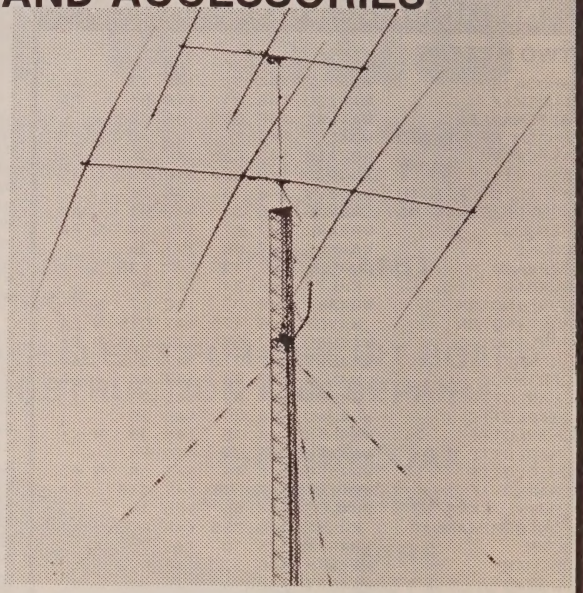
Many people have difficulty in water proofing and tying down hard line and multiple runs of cable to withstand years of weathering. We believe the following items are some of the best available for this purpose:

Scotchkote electrical coating made by 3-M Co. 15 oz. brush top can, can also be used for UNDER WATER CONNECTIONS.

Will do 50-100 connections $21.00.

Stainless steel strapping kits, for strapping hard line or mutliple runs of Coax. Kits come with 25,50, or 100 ft. of stainless steel strapping and buckles.

25-ft. Kit $14.20
50-ft. Kit $20.40
100-ft. Kit $29.50



We can also supply ½ and 7/8'' hard line in aluminum or copper. We also have a limited stock of hard line connectors. If we do not have the connectors you need, they can be supplied within approximately ten days.

If you want or need something not listed above, call us, we may have it or can get it for you. All of the above items are standard stock items and we will try to fill your order promptly. We have a limited variety of utility pole hardware and can supply utility poles in the Greensboro, N. C. area only. Call us if you have a problem, we will design a system for you.

WEST ANTENNA SERVICE

RT 6 BOX 529 - A GREENSBORO 27405
HARWOOD WEST WB4RLO

CALL TOLL FREE 1-800-334-4252
NC RESIDENTS 1-800-632-0389
LOCAL CALL 621-2473

SYLVA	KA4V *	223.34	224.94	N	
WINSTON-SALEM	WB4UGW	222.44	224.04	N	C
WINSTON-SALEM	WA4YHH	223.04	224.64	N	
WINSTON-SALEM	WA4GIC	223.10	224.70		R
WSTFLD/SAUTN MT	W4RXG	223.28	224.88		

440 MHZ

ASHVL/MT PISGAH	WA4COS	449.90	444.90	N	
CHARLOTTE	WR4ALO	449.85	444.85	N	
GREENSBORO	WB4HZI	449.90	444.90	N	
HIGH POINT	K4AZA	447.90	442.90		L
HILLSBOROUGH	WA4WTX	449.10	444.10		
LOCUST	WA4LBT	448.70	443.70		
LYNWOOD	KA4HEV	449.45	444.45	N	P
SALISBURY	W4EXU	449.70	444.70		C

SIX METERS

CARY	WR4AVP	52.35	53.35	N	
HENDERSONVILLE	WB4YAO	52.01	53.01		
HENDERSONVILLE	WB4YAO	52.525	52.525		RB
HICKORY	WR4ACM	52.47	53.47	N	
HIGH POINT	K4AZA	52.15	53.15	N	L
HILLSBOROUGH	WA4WTX	52.525	52.525		RB
NEWPORT	K4GRW	52.01	53.01		P
RALEIGH	K4ITL	52.05	53.05	N	
STATESVILLE	WA4WRS	52.67	53.67	N	

TEN METERS

NEWPORT	K4GRW	29.56	29.66		P

SOUTH CAROLINA REPEATERS

TWO METERS

AIKEN	N4ADM	147.90	147.30		
ANDERSON/LOCAL	WR4AIO	146.37	146.97		PA
ANDSN/SASFRAS MT	WR4AIO	146.19	146.79		
BAMBERG	WA4DFP	144.73	145.33	N	
BEAUFORT	KB4CY	146.01	146.61		
BLAIRSVILLE(GA)	WA4EZN	147.69	147.09	N	LEA
CAROWINDS	WR4ABK	147.78	147.18	N	
CHARLESTON	K4LWS	146.06	146.66	N	
CHARLESTON	K4ILT	146.16	146.76	N	PA
CHARLESTON	W4IVE	146.34	146.94	N	T
CHARLESTON	WB4LET	147.87	147.27		A
CHELSEA	KB4GY	146.01	146.61	N	
CHERAW	WD4HEH	147.735	147.135		
COL./GASTON	WB4NEP	144.61	145.21		EA
COLUMBIA	N4EOY	146.07	146.67		
COLUMBIA	WB4OCB	146.16	146.76		
COLUMBIA	K4AVU	146.28	146.88		
COLUMBIA	K4LNU	146.34	146.94		
COLUMBIA	K4AVU	147.81	147.21		
COLUMBIA	N4CZR	147.84	147.24	N	
COLUMBIA	WB4VLY	147.93	147.33		
COLUMBIA	K4LNU	147.96	147.36		A
DALTON(GA)	KA4WIZ	147.315	147.915		
DILLON/PEE DEE	NN4N	146.145	146.745		
FLORENCE	W4ULH	146.25	146.85		
FLORENCE	WA4ISM	146.37	146.97		PA
GOOSE CREEK	W4NAT	147.78	147.18	N	
GREENVILLE	W4AZT	146.10	146.70		A
GREENVILLE	WR4	147.675	147.075	N	PA
GREENWOOD	WB4UGA	147.765	147.165		PA
GREER	W4IQQ	146.34	146.94	N	
GRNVLE/CSRS HD	W4NYK	146.01	146.61		
GRNVLE/PARIS MT	W4NYK	146.22	146.82		PA
HARTWELL(GA)	KY4T	146.895	146.295		A
HODGES/GREENWOOD	KB4YF	144.53	145.13		
LANCASTER	W4PAX	146.10	146.70		
LANCASTER	WB4BGF	147.84	147.24		
LAURENS	WA4UZA	146.25	146.85	N	A
LEXINGTON	WR4AGK	147.255	146.835	N	
LONG MT	WA4JRJ	147.87	147.27	N	
LYMAN	KS4I	147.885	147.285		
MARION	W4YLT	146.40	147.00		EA
MONCKS CORNER	WA4DDK	147.75	147.15	N	A
MYRTLE BEACH	WD4JMT	146.01	146.61		A
MYRTLE BEACH	WA4YEE	147.72	147.12	N	
MYRTLE BEACH, N	WA4JYR	147.63	147.03	N	PA
N. AUGUSTA	K4FKJ	146.13	146.73		
N. AUGUSTA	WR4ALS	147.72	147.12	N	
NORTHWEST SECT.	W4GZL	144.51	145.11	N	P
ORANGEBURG	WR4AQY	147.69	147.09	N	A
PICKENS	WB4YXZ	146.40	147.00		A
ROCK HILL	WR4	144.71	145.31	N	
ROCK HILL	K4YTZ	146.43	147.03		PA
SAVANNAH(GA)	W4HBB	146.28	146.88		
SAVANNAH(GA)	W4HBB	146.37	146.97		A
SIMPSONVILLE	WD4BJY	146.13	146.73		A
SIMPSONVILLE	WA4SDT	147.75	147.15	N	R
SPARTANBURG	K4JLA	147.69	147.09	N	PA
SUMMERVILLE	WR4AUV	146.19	146.79	N	
SUMMERVILLE	WB4LET	147.87	147.27	N	EA
SUMTER	WR4AOI	146.04	146.64		
SUMTER	WA4UMU	147.615	147.015		A
TOCCOA(GA)	KA4DIP	147.93	147.33		
WEST BROW(GA)	KC4EV	147.81	147.21		
WHITE HALL	WR4AQL	146.31	146.91	N	

220 MHZ

COLUMBIA	N4EOY	222.30	223.90		O
EASLEY/SASFRS MT	KJ4X	222.46	224.06		
PICKENS	WB4QHF	222.54	224.14		

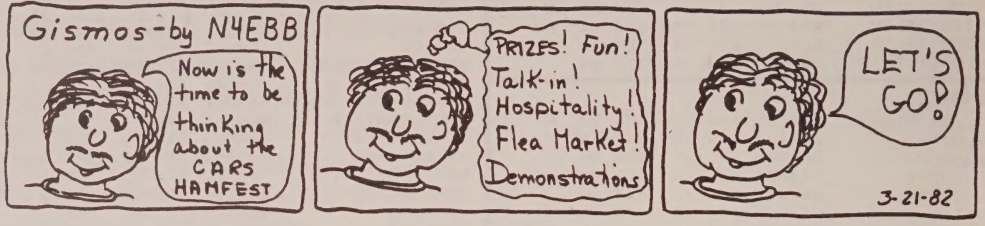
440 MHZ

CHARLESTON	N4SC	449.10	444.509	N	T
COLUMBIA	KC4YI	449.10	444.10		
ROCK HILL	KA4RFA	442.25	447.25	N	

TENNESSEE REPEATERS

TWO METERS

ALAMO	WB4EDS	147.135	147.735	N	
ALTAMONT	WR4AWN	146.37	146.97	N	
ATHENS	WB4GRC	144.71	145.31	N	C
BENTON	K4SIR	144.85	145.45	N	
BLONTVILLE	WA4KMG	147.60	147.00		PA
BRISTOL	K4ILW	146.07	146.67		A
BRISTOL	W4SZP	146.28	146.88		A
BRISTOL/HLSTN MT	WR4ADO	146.16	146.76		
BROWNSVILLE	WA4ABU	146.655	146.055	N	A
CENTERVILLE	WB4PZB	147.915	147.315	N	
CHATTANOOGA	K4CMY	144.53	145.13		
CHATTANOOGA	KB4TZ	144.79	145.39		A
CHATTANOOGA	K4CMY	146.01	146.61		
CHATTANOOGA	W4DSK	146.19	146.79		A
CHATTANOOGA	WA4ZOK	147.60	147.00		PA
CLARKSVILLE	WA4TEQ	147.60	147.00	N	
CLEVELAND	WR4AQV	147.78	147.18	N	
COLUMBIA	WR4AIX	147.72	147.12	N	
COOKEVILLE	WR4ANW	146.07	146.67	N	
COOKEVILLE	N4WS	147.81	147.21		
COVE MTN/GTLBG	WA4KJH	146.25	146.85		
COVINGTON	WA4VXW	147.93	147.33	N	
CROSSVILLE	WR4AKQ	146.04	146.64	N	
CROSSVILLE	WR4BEL	147.93	147.33	N	
DAYTON/RHEA CTY	K4ZLA	147.99	147.39	N	
DYERSBURG	AA4HF	146.145	146.745	N	
FAYETTEVILLE	KO4G	146.865	146.265	N	C
FAYETTEVILLE	WR4BAQ	147.63	147.03	N	
FISHERVILLE	N4DRL	144.65	145.25	N	A
GALLATIN	WB4DLQ	147.84	147.24	N	


Gismos-by N4EBB
Now is the time to be thinking about the CARS HAMFEST
PRIZES! Fun! Talk-in! Hospitality! Flea Market! Demonstrations
LET'S GO!
3-21-82

CHARLESTON HAMFEST

Charleston, S. C.

SPONSORED BY CHARLESTON AMATEUR RADIO SOCIETY

Location: OMAR SHRINE TEMPLE

Air Conditioned - 24 Hour Security

General Admission - $4.00
Includes One Prize Ticket
(12 and under - Free)

Flea Market Tables - $5.00

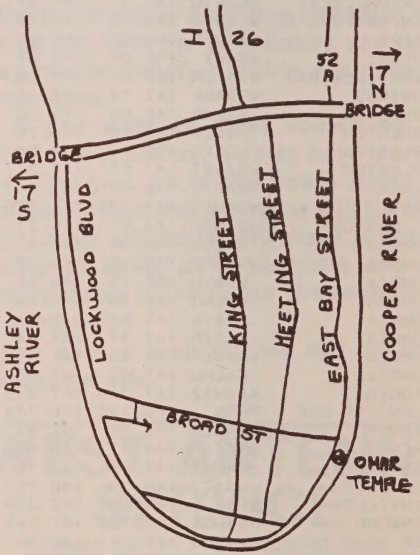
Commercial Booths - $35.00
Includes Two Admission and
Two Prize Tickets

Buffet Available - Sat and Sun.

Hospitality Room -
Sat. 7:30-11:00 P.M. (Omar Temple)

Talk-In 146.16/76

Info: Charleston Hamfest Committee
POBox 30643
Charleston, S.C. 29407
(803) 747-2324/ 554-8058



GALLATIN	WA4YQC	147.87	147.27	N	
GREENEVILLE	W4ANB	146.10	146.70	N	
GREENEVILLE	WA4LYF	147.66	147.06		A
GREENEVILLE	WB4TUO	144.81	145.41	N	
HENDERSONVILLE	WB4ZCK	146.915	147.315	N	RB
HENDERSONVILLE	N4WF	147.63	147.03	N	
HOHENWALD	WB4LHV	147.765	147.165	N	
HORNBEAK	WA4OXK	146.865	146.265	N	
JACKSON	W4WKZ	147.81	147.21	N	
JASPER	KA4LGN	144.59	145.19	N	
JOHNSON CITY	WB4IKB	146.19	146.79		
JOHNSON CITY	KE4FH	147.87	147.27		A
JONESBORO	WB4SQC	147.99	147.39		PA
KNGSPT/BAYS MT	W4TRC	146.37	146.97		A
KNOXVILLE	WB4JSD	144.51	145.11		R
KNOXVILLE	WA4KAV	144.55	145.15		
KNOXVILLE	K4KFD	144.61	145.21	N	A
KNOXVILLE	WA4TEM	144.73	145.33		A
KNOXVILLE	WB4GBI	144.87	145.47		
KNOXVILLE	WB4IOB	146.13	146.73		
KNOXVILLE	K4HXD	146.34	146.94		
KNOXVILLE	K4HXD	147.675	147.075		A
KNOXVILLE	W4BBB	147.90	147.30		
KNOXVILLE	WB4HAP	147.96	147.36		
LAFOLLETTE	W4TZG	146.07	146.67		
LAKE CITY	WB4OAH	146.22	146.82	N	
LEBANON	WR4BBM	146.13	146.73	N	
LEXINGTON	WB4LGH	146.43	147.03	N	
LOUDON CTY.	WD4HQI	144.57	145.17		
MADISON	WB4NTM	146.04	146.64	N	
MANCHESTER	WR4ACI	146.10	146.70		A
MARTIN	WA4ZQX	146.625	146.025	N	
MCMINVL/SHT MT	W4KKO	144.89	145.49		
MEDINA	K4BEZ	146.37	146.97	N	AL
MEMPHIS	WR4AZK	144.89	145.49		
MEMPHIS	WB4MQD	145.33	PACKET	N	
MEMPHIS	W4GYS	146.04	146.64	N	
MEMPHIS	WR4AOG	146.10	146.70	N	R
MEMPHIS	WR4AGR	146.13	146.73	N	
MEMPHIS	WR4ABS	146.19	147.51	N	
MEMPHIS	WR4AHO	146.22	146.82	N	
MEMPHIS	WR4AZK	146.25	146.85		A
MEMPHIS	WA4ETE	146.28	146.88	N	A
MEMPHIS	K4BN	146.34	146.94	N	A
MEMPHIS	K4FZU	146.40	147.00	N	
MEMPHIS	WR4AXF	146.46	147.06	N	
MEMPHIS	WR4BCU	147.63	147.03	N	
MEMPHIS	WR4AWT	147.69	147.09	N	
MEMPHIS	WA4ETE	147.72	147.12	N	AT
MEMPHIS	WR5AII	147.75	147.15	N	
MEMPHIS	WR4AZK	147.78	147.18		
MEMPHIS	WD4APK	147.84	147.24	N	
MEMPHIS	WR4AZC	147.87	147.27	N	
MEMPHIS	WR4ASF	147.90	147.30	N	
MEMPHIS	WR4ATA	147.96	147.36	N	
MEMPHIS	WR4ASR	147.99	147.39	N	
MIDDLEBRO(KY/TN)	W4PPM	144.63	145.23	N	
MORRISTOWN	WB4OAH	147.63	147.03	N	
MORRISTOWN	WB4OAH	147.825	147.225	N	
MOUNTAIN CITY	WD4OMO	144.87	145.47	N	
MURFREESBORO	WB4LHO	144.57	145.17	N	
NASHVILLE	WB4ZSA	144.83	145.43		C
NASHVILLE	WA4PCD	146.01	146.61	N	
NASHVILLE	WB4NTM	146.07	146.67	N	
NASHVILLE	WB4QES	146.16	146.76	N	
NASHVILLE	WR4AFA	146.19	146.79		
NASHVILLE	N4TK	146.25	146.85	N	
NASHVILLE	WB4QES	146.28	146.88	N	
NASHVILLE	WA4PCD	146.34	146.94	N	
NASHVILLE	AF4K	147.615	147.015	N	
NASHVILLE	WB4JVP	147.75	147.15	N	
NASHVILLE	WA4PCD	147.78	147.18	N	
NASHVILLE	WB4ZSA	147.90	147.30		PA
NASHVILLE	WB4NTM	147.96	147.36	N	
NASHVILLE	WB4JTN	147.975	147.375	N	
NASHVILLE	WB4DLQ	147.99	147.39	N	
OAK RIDGE	W4SKH	146.28	146.88		
OAK RIDGE	W4SKH	146.37	146.97		A
OAK RIDGE	K4EAJ	147.72	147.12		L
OAK RIDGE	K4EAJ	147.75	147.15		R
PARIS	K4KLX	147.96	147.36	N	
PIKEVILLE(KY)	KA4BQH	144.59	145.19		
PIKEVILLE(KY)	N4ETG	146.19	146.79		C
PULASKI	W4JVO	146.715	146.115	N	
SAVANNAH	WA4TPA	144.77	145.37	N	
SAVANNAH	WB4DQU	146.31	146.91	N	
SAVANNAH	WA4TPA	147.87	147.27	N	
SHELBYVILLE	WR4AQM	147.66	147.06	N	
SHORT MT/SMTHVL	W4YXA	146.31	146.91		
SPARTA	W4BSA	147.69	147.09		A
SPRINGFIELD	WR4AGH	147.63	147.03	N	
STANTONVILLE	WA4TPA	144.79	145.39	N	
UNION CITY	WR4AUQ	146.10	146.70	N	
WALNUT COVE	W4RJC	144.67	145.27	N	
WAVERLY	NO4Q	146.685	146.085	N	
WINCHESTER	WR4AFH	146.22	146.82		

220 MHZ

CHATTANOOGA	K4VCM	223.18	224.78		A
CHATTANOOGA	WA4ZOK	223.30	224.90		
GREENEVILLE	WB4NKM	223.34	224.94		A
KNOXVILLE	WA4YON	222.86	224.46		
NASHVILLE	WB4ZSA	222.38	223.98		A
NASHVILLE	N4DKA	222.42	224.02	N	

440 MHZ

ALAMO	WB4EDS	448.75	443.75	N	L
BENTON/BEAN MT	K4SIR	449.95	444.95	N	C
BRISTOL/HLSTN MT	WR4ADO	449.50	444.50		
CHATTANOOGA	WA4ZOK	439.25	427.25		V
FRANKLIN	WB4EPG	447.80	442.80	N	
GALLATIN	WD4KWP	449.45	444.45		
GREENEVILLE	WB4NKM	449.65	444.65		
KNOXVILLE	K4HXD	449.30	444.30		
KNOXVILLE	KB4NK	449.50	444.50		
MEDINA	K4BEZ	447.05	442.05	N	AL
MEMPHIS	WA4QWW	447.80	442.80	N	
MEMPHIS	WB4BDO	448.40	443.40	N	A
MEMPHIS	WD4APK	449.30	444.30	N	
MEMPHIS	WA4FNL	449.50	444.50	N	A
NASHVILLE	N4TK	449.775	444.775	N	
NASHVILLE	WB4THG	449.875	444.875	N	
NASHVILLE	WB4QES	449.975	444.975	N	
OAK RIDGE	K4EAJ	449.40	444.40		L

SIX METERS

CHATTANOOGA	WB4LRD	52.01	53.01	N	
KNOXVILLE	WB4IOB	52.15	53.15		
KNOXVILLE	WA4YON	52.64	53.64		
KNOXVILLE	K4HXD	52.76	52.525		
MEMPHIS	WR4AZK	52.01	53.01		
KNOXVILLE	K4HXD	29.52	29.62		C

CVRA REPEATER SYMBOLS

Unmarked in First Code column-Full CVRA Members

N	NON Member CVRA	RB	Remote Base System
D	Delinquent Member	T	Tone Access Repeater
M	T-MARC Repeater	L	Linked Repeater
A	Open Autopatch	R	Radioteletype Rptr.
PA	Private Autopatch	V	Television (SS or ATV)
EA	Emerg. Autopatch	P	Proposed Repeater
		C	Under Construction
		O	Off Air Temporarily

THE COUNTRY'S MOST COMPLETE STORE -

CVRA ADVERTISERS

ICOM • KENWOOD • YAESU • KDK • TEMPO • AZDEN • SANTEC • TEN-TEC • DRAKE • CUBIC-SWAN • RADIO TRANSCEIVERS

AVANTI - LARSEN - CUSHCRAFT - HY-GAIN - ANTENNA SPEC - HUSTLER - ANTLER WILSON - KLM - BUTTERNUT - ANTENNAS

PLUS B & W - MFJ - BENCHER - NYE-VIKING - ASTRON - OPTOELECTRONICS - UNIVERSAL ROHN - KANTRONICS - VOCOMM - TRIONYX - PALOMAR - BELDEN - CALLBOOKS - MIRAGE ALLIANCE - CDE - TRAC - DAIWA - J.W. MILLER W2AU - BOMAR - BIRD - AMECO - BASH BOOKS - PATHCOM - REYCO - VISTA - DIELECTRIC - NAME TAGS - BADGES - ROPE - SPEAKERS - ARRL - MORE!!

THE REPEATER JOURNAL URGES TO YOU PATRONIZE

OUR ADVERTISERS - YOUR AREA STORES

They Support your Hamfests, Clubs, CVRA-SERA & ARRL
Why Not Support Them - The Selection Is Unlimited,
The Service Is Super, and the Prices VERY Competitive!

REPEATER JOURNAL ADVERTISERS

VIRGINIA REPEATERS

TWO METERS

ALEXANDRIA	WD4PDP	146.055	146.655	M	
ALEXANDRIA	W4HFH	147.915	147.315	M	
ALTAVISTA	WA4ISI	146.055	146.655	N	
ARLINGTON	WA4YVN	146.445	147.045	M	
BARREN SPRINGS	WR4AFQ	146.07	146.67		
BARREN SPRINGS	K4HZS	147.78	147.18		
BEDFORD	WB4JBJ	147.705	147.105		LR
BERRYVILLE	WR4APE	147.90	147.30	M	
BLACKSBURG	AB9I	146.115	146.715		
BLAND	N4AZJ	144.75	145.35		L
BLUEFIELD	W8MOP	144.89	145.49	N	A
BLUEFIELD	WD8OGY	146.415	147.015		PA
BRISTOL	K4ILW	146.07	146.67		A
BRISTOL	W4SZP	146.28	146.88		
BROMLEY MT	WR4ATJ	146.01	146.61		
CHARLOTTESVILLE	WA4TFZ	146.16	146.76		
CHARLOTTESVILLE	WA4TFZ	146.325	146.925		
CHESAPEAKE	N4SD	146.19	146.79		A
CLIFTON FORGE	K4QEL	147.90	147.30	N	
COVINGTON	WB4CAV	146.22	146.82	N	
CULPEPPER	WR4BCS	147.72	147.12	M	
DANVILLE	K4WQS	146.10	146.70		
DANVILLE	WR4AHG	147.95	147.35	N	
DANVILLE(DCC)	WB4GJG	146.325	146.925		
FAIRFAX	W4LBL	146.19	146.79	N	PA
FAIRFAX	K4VYN	146.31	146.91	N	PA
FALLS CHURCH	W4AQD	144.75	145.35	M	
FARMVILLE	WB4NWP	146.31	146.91	N	A
FINCASTLE	W4WIC	146.04	146.64		
FOREST	K4STE	146.16	146.76		EA
FRANKLIN	K4SPS	147.90	147.30	N	PA
FREDRICKSBURG	WB4LNT	147.615	147.015		
GALAX	WA4ZIV	144.83	145.43	N	
GALAX	WA4DFH	147.735	147.135		
GALAX/BRIRP MT	WR4AHR	147.69	147.09		
GATE CITY	WD4GTA	147.945	147.345	N	
GRUNDY	K4HWQ	147.92	147.32	N	A
GUM SPRING	KB4GX	147.87	147.27	N	
HAMPTON	WR4ALW	146.13	146.73		
HAMPTON	WR4AFT	146.34	146.94	N	T
HAYSI	WR4AWR	147.60	147.00	N	
HAZEL MT	WD4CYZ	146.235	146.835	N	
HIGH KNOB/WISE	K4AXO	147.81	147.21		
HILLSVILLE	WD4BTJ	147.975	147.375		A
JONESVILLE	WA4OVC	146.31	146.91		
KLMNRK/SALUDA	WA4UAF	147.93	147.33		
LEBANNON	N4ATT	144.61	145.21	N	C
LEXINGTON	WA4WBD	146.07	146.67		
LEXNGTN/COLE MT	K4PQD	144.71	145.31	N	
LEXNGTN/COLE MT	K4PQD	147.93	147.33	N	
LYNCHBURG	WR4AXO	146.01	146.61	N	
LYNCHBURG	WA4RTS	146.34	146.94	N	
LYNCHBURG	K4QKR	147.84	147.24	N	L
LYNCHBURG	W4OSH	147.975	147.375		PA
MANASSAS	WD4JCE	144.67	145.27	M	R
MANASSAS	W1CRO	146.37	146.97		PA
MARION	N4BIW	146.04	146.64		EA
MARTINSVILLE	AB4L	147.885	147.285		
MCLEAN	WD4IWQ	147.81	147.21	M	R
NEW MARKET	WR4ATG	146.025	146.625	M	
NEWPORT NEWS	WB4CTF	147.765	147.165		PA
NEWPORT NEWS	WA4OHX	147.975	147.375	N	AC
NORFOLK	WB4LJM	146.10	146.70		
PARKSLEY	WA4TVS	147.855	147.255	N	C
PETERSBURG	K4SII	147.78	147.18	N	
PETERSBURG	K4ARO	147.84	147.24		PA
PETERSBURG	K4ARO	147.99	147.39		
PORTSMOUTH	N4PR	146.25	146.85	N	
RICHMOND	W4SQT	144.83	145.43		
RICHMOND	WB4QEY	146.04	146.64		
RICHMOND	WR4ACW	146.28	146.88	N	PA
RICHMOND	W4ZA	146.34	146.94		T
RICHMOND	WA4ECM	147.66	147.06	N	
RIPPLEMEADE	K4TUE	146.31	146.91		
ROANOKE	WB4QOJ	146.145	146.745	N	L
ROANOKE	WR4AHT	146.34	146.94	N	AO
ROANOKE/POOR MT	W4CA	146.385	146.985		L
SALEM	W4PDL	146.28	146.88	N	
SOUTH BOSTON	WR4AYU	146.46	147.06	N	O
STAUNTN/AFTON MT	W4PNT	147.675	147.075	N	LR
STAUNTON	WA4ZBP	146.25	146.85		
STAUNTON	W4WRN	147.645	147.045	N	
STERLING	WA4TXE	146.115	146.715	M	
SUFFOLK	WR4AKS	146.40	147.00	N	PA
TAZEWELL	WD4DZE	147.75	147.15	N	
VIRGINIA BEACH	WA4KXV	146.37	146.97		A
VIRGINIA BEACH	WA4SBC	147.645	147.045	N	
WARRENTON	WB4FJT	147.765	147.165	M	
WAYNESBORO	W4BLD	147.63	147.03		
WILLIAMSBURG	W4NTG	146.07	146.67	N	
WINCHESTER	W4RKC	146.22	146.82		
WOODBRIDGE	WB4FQR	147.84	147.24	M	A
WYTHVL/SAND MT	WA4EMS	146.175	146.775		

220 MHZ

ALEXANDRIA	WA4CCF	223.22	224.82	M	
DAN/WHT OAK	K4OAK	223.16	224.76	N	
FAIRFAX	K4GCM	222.34	223.94	N	
FALLS CHURCH	N4CHP	222.22	223.82	M	
GALAX	WA4DFH	222.74	224.34		
LYNCHBURG	WB4DBB	223.34	224.94		C
SUFFOLK	WA4JUO	222.34	223.94	N	C

440 MHZ

ALEXANDRIA	WR4AAG	439.25	426.27	M	V
ALEXANDRIA	W4HFH	449.60	444.60	M	
ANNANDALE	WR4AQG	444.85	449.85	M	PL
ARLINGTON	K8ZOA	449.00	444.00	M	L
CHARLOTTESVILLE	WA4TFZ	449.25	444.25		
COVINGTON	WB4CAV	447.25	442.25	N	
FAIRFAX	K4JYF	444.75	449.75	N	
FALLS CHURCH	WB8CRK	449.45	444.45	M	L
LEXNGTN/COLE MT	K4PQD	449.15	444.15	N	
LYNCHBURG	WB4DBB	449.35	444.35		L
LYNCHBURG	K4HEX	449.50	444.50	N	RB
MANASSAS	WD4JCE	444.225	449.225	M	L
PETERSBURG	K4ARO	449.50	444.50		
PETERSBURG	K4ARO	449.85	444.85		
ROANOKE	WR4AFE	447.75	442.75	N	
ROANOKE/POOR MT	W4CA	442.50	447.50		L
SOUTH BOSTON	WB4YWH	447.25	442.25	N	C
STAUNTON	W4WRN	449.95	444.95	N	C
TYSONS CORNER	WB6GUS	448.50	443.50	M	
VIRGINIA BEACH	WA4KXV	449.95	444.95		
WAYNESBORO	W4BLD	449.30	444.30		PA
WAYNSBR/AFTON MT	W4BLD	449.05	444.05		
WOODBRIDGE	WB4FQR	444.90	449.90	M	

SIX METERS

ABINGTON	WR4ATJ	52.01	53.01	M	L
ALEXANDRIA	WA4CCF	52.13	53.13	M	P
DANVILLE(DCC)	WB4GJG	52.13	53.13		
FAIRFAX	KA4DCS	52.58	52.48	M	
LEXNGTN/COLE MT	K4PQD	52.01	53.01	N	L
LYNCHBURG	WB4DBB	52.15	53.15		
NORFOLK	W4NV	53.525	52.525	N	
NORTN/HIGH KB	K4LSP	52.01	53.01		
SOUTH BOSTON	WB4YWH	52.07	53.07	N	C

TEN METERS

CHARLOTTESVILLE	K4RKA	29.60	29.60	N	RBC

WHERE DO WE GO FROM HERE

—by Ray Adams, N4BAQ, Treasurer

I guess I was an early Tennessee member, joining CVRA as an associate member in May 1979, shortly after receiving a Technician class license. I was quickly impressed by the quality of the Repeater Journal. The following May I served the Radio Amateur Club of Knoxville as Hamfest Chairman, and bought, I believe, the first full page ad for a Tennessee Hamfest to appear in the Journal. It produced results to the point we are using two issues of the Journal this year.

In the fall of 1979, our club machine was placed in service from the top of Chilhowee mountain in Blount County, and my "baptism in fire" in repeater operation began when I volunteered to help with the erection of a tower for it and ended up putting every bolt in the 100 foot Rohn 25G which presently supports the antenna. I'm one of the three or four club members ready, willing, and able to stop the world and pull twenty bucks of gasoline through a four by four during the four hour grind to the mountaintop to adjust the squelch, change a fuse – and even chase that persistent squirrel out of the building when he shorted the main AC switch on the panel – if you have an imagination you can guess how he accomplished that feat!

During this time, I was becoming more and more aware of the importance of good coordination of amateur repeaters, and was naturally pleased when Tennessee joined the organization. Jean Giesler, W4TYU and myself asked surrounding repeater operators for, and got, five written nominations of Sam Kirby WB4HAP as Tennessee's first director. Our confidence in his knowledge, ability, popularity and diplomacy was not misplaced. In his rookie year, he walked off with the president's award as the organizations' most effective Director.

My "politicing" on Sam's behalf backfired. He approached me in the spring of 1981 with the information that Carl Smith N4AA who had served the association so capably as Treasurer for two years was being pressed by personal matters to the point that he would be a candidate for re-election that fall only if no other candidate could be found. Would I accept the nomination? You just don't help put a man in office, delight in seeing him perform so superbly, and tell him no when he asks for help. In order to make the time available to do the job in the manner it deserved, I maneuvered my way out of office at the international level of another volunteer organization at their annual convention in Indianapolis in July and told Sam I would accept. Maybe Carl heard there was someone else that would take the job; in any event, he resigned unexpectedly, sending all records and his letter of resignation to the Shelby Hamfest, where the directors hold their annual meeting. Prior to Shelby, Jean, now president of RACK, resigned as one of the two full members representing W4BBB and I was named instead. My excuse that I was only an associate member and thus not qualified to hold office had fallen on very deaf ears.

Sam called in the middle of the night, panic in his voicè. Would I accept the appointment for the balance of the term? Cool it, old man, bring the junk with you, let's see what it looks like. The rest of the directors surely did place at least some confidence in Sam's judgement. He was the only officer or director who knew what I even looked like.

At the midwinter meeting of the officers and directors in Asheville in January 1982, I met the rest of the gang. No wonder I had been impressed by the organization. They are capable, dedicated men from five states, participating in very candid and honest discussion, yet never letting it become a heated debate.

The preliminary budget I pieced together using input from all concerned was the wet blanket of the weekend. With Triangle Printing out of business and the best quotation Wayne could find indicating a 50% increase in printing cost, even the 45% reduction of journal mailing cost made possible by the now-visible but not yet achieved recognition by IRS as a tax exempt educational organization could not keep 1982 from looking like a $1243 deficit.

We are not a profit-oriented corporation with stockholders demanding we produce a return on their investment. We are a management team to which our members have entrusted prudent operation for the purpose of serving those very members, and it is from them that we extract the bulk of the funds with which to operate. Our lowest bank balance during 1981 was just over $2000. We could absorb a $1200 deficit and survive ONE YEAR ONLY. Then what do we do? The $800 remaining cushion would represent only 5% of present budget, and that is too close for comfort, as unexpected events do occur.

Your directors (and only they vote) met the problem head-on. Several steps were taken immediately.

Continued On Page 39

WHERE DO WE GO FROM HERE

1) Those collecting funds for SERA were requested to be as prompt as possible in depositing the funds in order to maximize the bank balance.
2) The February Journal for the first time in history carried a price on its front cover. It will be sold to the public both by amateur dealers and by the directors at hamfest and otherwise.
3) Leaflets of repeater indexes will not be printed in the future. We simply cannot afford the cost.
4) A concentrated effort to increase membership is earnestly solicited from not only the management team but the general membership as well to delay and minimize the amount of the inevitable dues increase that must come at some time in the future. Of the several organizations I belong to, not one of the others have failed to raise dues since May 1979. This speaks well of your directors; your confidence in them is not misplaced.

Thus we see the storm clouds of inflation on our horizon. When and how much is the question. Your directors will meet again at the Shelby Hamfest. By then the effectiveness of the above decisions should begin to reflect in the financial statement up to that point the year.

Financial statements for the last 4 years are presented below for your review. Thank you for the opportunity to serve you, and particularly for entrusting me to handle the entirety of your funds.

FINANCIAL STATEMENTS
CVRA-SOUTHEASTERN REPEATER ASSOCIATION, INC.
Calendar years 1978 through 1981

OPERATIONS	1978	1979	1980	1981
REVENUES				
Advertising	$1,914,50	$ 2,985.75	$ 3,119.75	$ 3,745.70
Associate membership dues	4,745.00	6,865.75	7,073.05	8,050.96
Full membership dues	411.00	1,102.00	1,066.00	1,960.00
Miscellaneous			79.25	16.84
TOTAL INCOME	$7,070.50	$10,953.50	$11,338.05	$13,773.50
EXPENDITURES				
Journal mailing	$ 610.12	$ 958.79	$ 1,410.66	$ 1,646.33
Journal printing	4,447.58	6,767.09	8,087.13	8,333.25
Miscellaneous expenses	46.45	1,019.32	263.18	152.42
Officers and directors	258.99	290.99	569.22	330.61
Office supplies and expenses				223.31
Postage	310.11	393.93	328.17	892.34
Printing	498.49	877.04	691.72	595.06
Returned checks				28.25
Telephone				327.52
TOTAL EXPENDITURES	$6,171.74	$10,307.16	$11,350.08	$12,529.09
EXCESS OF REVENUES OVER EXPENDITURES	$ 898.76	$ 646.34	$ 12.03*	$ 1,244.41
STATEMENT OF ASSETS AND LIABILITIES AS OF PERIOD END				
ASSETS				
Cash	$2,136.19	$ 2,782.53	$ 2,433.79	$ 3,468.92
Expenses advanced			336.71	545.99
FUND BALANCE	$2,136.19	$ 2,782.53	$ 2,770.50	$ 4,014.91

Expenses advanced are two imprest cash funds held by committee chairmen. Membership chairman uses funds for mailing renewal notices. Circulation manager uses funds for mailing journal. In both instances, periodic accounting, complete with receipts are forwarded to treasurer for replenishment of fund. Except for postage, the invoices for all material items, printing, etc. are sent to the treasurer for direct payment. All expenditures are fully supported by paid receipts.

*denotes negative amounts

NOW THE "D" IS AN "N"

If your home repeater has not renewed for 1982, the "D" for delinquent membership has been changed to an "N" for non-member and their membership dropped from our roster.

Since your home repeater representatives will not get this issue of the Repeater Journal, why not contact them and urge them to find that application that was sent to them last December and fill it out and send it in. Urge your home repeater to support CVRA-SERA. After all you support us, and you support your home repeater. Why shouldn't they support us also?

GRAND STRAND ARC ELECTS OFFICERS

During the January meeting, the Grand Strand ARC of Myrtle Beach, S.C. elected new club officers. Elected to serve for 1982 included President, Bill Rice, KA4IOW; Vice-President, Richard Woods, KA4JSS; and Secretary/Treasurer, Tom Harmon, W2CUK.

The GSARC also became affiliated with the ARRL in February, 1982.

SHORT STUFF!

Good Evening Old Man, I didn't get your call, would you repeat your call and name Old Man . . . . kerchunk. "Shirley" . . . . kerchunk

BUSINESS CARD ADVERTISING

DEALERS-BUSINESSES
YOUR CARD HERE 4-Issues
$12.00/YEAR PREPAID
Write Our Sales Manager

REALTOR®
MULTIPLE LISTING SERVICE
(919) 378-1564
JIM McNAIRY
MCNAIRY & ASSOCIATES
1834 BANKING STREET
GREENSBORO, N.C. 27408
N4EEM

SUPERWELD
REG. U. S. PATENT OFFICE
A DIVISION OF PERKINS MOTOR PARTS, INC.
1107 S GEORGE ST.
GOLDSBORO, N. C. 27530
Complete Machine Shop Service
WCARA Repeater-K4CYP/R 25-85
H. W. PERKINS, JR. - W4TUQ
PRESIDENT
PHONE 735-1862

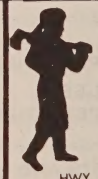
KC4GU
HAILEY REALTY
REAL ESTATE APPRAISERS • CONSULTANTS
141 OAKLAND AVE., P. O. BOX 2618 C.R.S.,
ROCK HILL, S.C. 29730
(803) 328-1883
C. FLOYD HAILEY, R.M.

MORTON L. CHURCH, JR.
ACCOUNT EXECUTIVE
WB4AUH
INTERSTATE SECURITIES CORPORATION
2700 NCNB PLAZA
CHARLOTTE, N. C. 28280
(704) 379-9000
MEMBER
NEW YORK STOCK EXCHANGE
AND OTHER PRINCIPAL EXCHANGES

Welcome to
W4LPL/REPEATER
"The Red Carpet Repeater"
Fayetteville, North Caroline
147.93/33
Proudly Serving our Community and the best darn Hams in the world

B. G. GOLDBERG &
ASSOCIATES, CONSULTING
FORENSIC ENGINEERS
BARNETT F. GOLDBERG, P.E., PRESIDENT
Investigation, Engr. Expertise & Testimony IN RE:
Arson, Sabotage & Tampering
Electrical & Mechanical Equipment Failure
Traffic & Community Noise & Vibration
Electrical, Radio and Television Hazards
Power & Telephone Line 'Right-of-Way'
(803) 787-6944 • 5205 Trenholm
Columbia, S.C. 29206

Colonial Motor Freight
Line, Inc.
GENERAL OFFICES • BOX 7027
HIGH POINT, NORTH CAROLINA 27264
K4JQR
ROBERT (BOB) WILLIAMS
District Manager
Hickory, NC
Phone (704) 328-2651


WB1BSX
RONALD E. WOLFE
(919) 732-9286
CROCKETT
Log Homes
HWY. 86 S. HILLSBOROUGH, N. C. 27278
Yesterday's Home for Tomorrow's Living

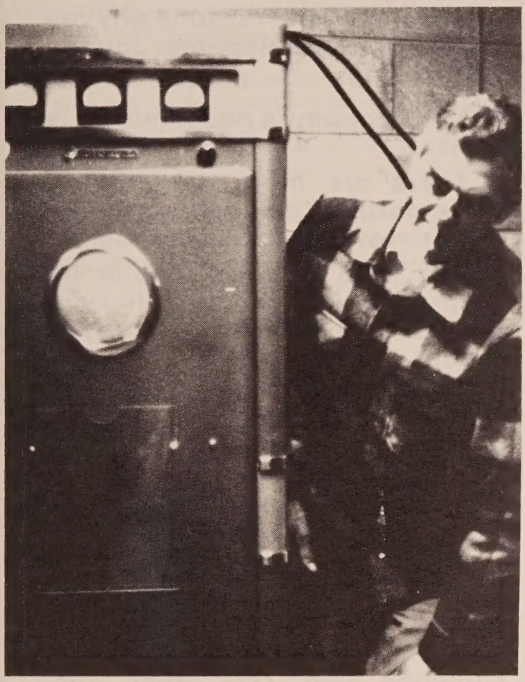
MULTIPLE LISTING SERVICE
MLS
HOLIDAY REALTY CO.
BUSINESS BROKERS AND EXCHANGE
1913 Norwich Dr.
Greensboro, NC 27410
WA4NHC
W. B. "CHICK" HOLLIDAY
President
Ofc.: (919) 294-0991
Res.: (919) 294-0990

(803) 366-7306
Stewart Enterprises
SCANNERS, CRYSTALS, AND ACCESSORIES
JAMES M. STEWART, JR
Owner
P. O. BOX 3118 CRS
ROCKHILL, SC 29730

(919) 993-5881 (AFTER 5)
Williams Radio Sales
THE CRYSTAL COMPANY
K4MOB
WAYNE C. WILLIAMS
AMATEUR EQUIPMENT SALES
ROUTE 1, BOX 806
COLFAX, NC 27235

NEW WIDE COVERAGE MACHINE

Continued From Page 19



ROD KIEPER, W4SQT moves the new repeater and duplexer into place in the Channel 35 building for the new Metropolitan Repeater Association 83-43 sub band repeater. The machine went on the air in March with excellent coverage for many miles. (Photo by K4OJE)

More than $7000 and substantial contributions of first class materials permitted the rapid and professional installation of this fine repeater. Such high locations are rarely available to amateurs, now, and the M.R.A. is most appreciative of the complete cooperation and assistance of the Channel 35 ownership. We feel all of Virginia from the mountains to the coast and from north to south borders may be very proud of this first class facility. Its potential for emergency and weather is great and its facilities are available to the Virginia Office of Emergency and Energy Services and to the weather bureau.

The repeater is not a "Rag Chew" repeater. It is oriented to mobile use and local base to base operations are requested to use it as a calling repeater and to limit use to a few minutes. The repeater has an adjustable timer 1 minute to three minutes. At present it is operating with a one minute timer (reset with appx 1 second carrier break) and which has proven to be very acceptable. It is tone access, second column touch tone or whistleup, but a one-shot carrier access is provided after the repeater has not been in use for three minutes. This discourages the "kerchunkers". A Lunar PAG-144 GaasFet repeater pre amplifier and a Wacom W8641 cabinet enclosed duplexer are used.

Base coverage is extensive from the Eastern shore to near West Virginia and from Maryland to North Carolina. Mobile coverage extends for 60 to 100 miles depending on terrain and Williamsburg, Fredericksburg, Emporia, Charlottesville as well as many areas in the Shenandoah Valley (Waynesboro, Staunton, Harrisonburg, Lurray and Winchester) are mobile usable. This is somewhat more than anticipated.

The repeater facilities are controlled by private, unlisted, telephone line and control operators provide live coverage around the clock to amateurs who may have need or emergencies.

An interesting note is that among the ninety-six charter members are the Presidents of all three of Richmond's Amateur Radio Clubs (RATS, RARC and VARA) and also principals in the 147.78/18 Petersburg Repeater and the Telephone Pioneers 146.04/64 repeater.

The President is Brad MacKay (WB4OYA), the vice President Jim Fitzgerald (K4OJE), Secretary is Matt Long (N4MI), treasurer is Jim Dickinson (W4LLF) and the board of directors consist of Dave Jewett (WA4HOT), Alan Coppins (WA2FDA), Earl Bishop (N4EXQ) and Bill Scruggs (N4DDM). Rod Kieper (W4SQT) is Chairman of the Repeater and Engineering Committee and the repeater bears his call. (Rod is also Chairman of the 34-94 Repeater Committee and is highly regarded by amateurs in this area).

The Association will have general meetings quarterly and regular directors meetings to conduct the affairs of the association which is handled like a small business rather than a radio club. The M.R.A. is in process of incorporating and is fully insured as to liability and to equipment damage (including lightning).

BRATS MARYLAND HAMFEST JULY 25

The Baltimore Radio Amateur Television Society (BRATS) will sponsor their annual Maryland Hamfest on Sunday, July 25 at the Howard County Fairgrounds, 15 miles West of Baltimore. Prizes, food, flea market, indoor/outdoor exhibit areas and contests will be featured. Talkin on 16-76, 63-03 and 52 simplex.

CVRA REPEATER JOURNAL ADVERTISING RATE CARD

(Effective 1-1-82)

INS. FT. 1 BK COVER	(6 x 7½)	$65.00
FULL PAGE	(6 x 7½)	45.00
ONE-HALF PAGE	(6 x 3-3/4)	25.00
ONE-QUARTER PAGE	(2-7/8x3-3/4)	15.00
BUSINESS CARDS	Standard Size	12.00/yr. (In Advance)
CLASSIFIED ADS	(30 words max)	2.25 per ad. (In Advance)
HAMFEST ADS	ANY SIZE — SAME AS ABOVE (In Advance)	

ADVERTISING DEADLINES ARE:
Jan. 1, Apr. 1, July 1, Oct. 1

CVRA REPEATER JOURNAL advertising rates apply to exact size, camera ready copy. We can set type and reduce art for your ad at our cost. Composition and typesetting for full page ad, approximately $14 to $16. Artwork or complete ad reduction/enlargement are $4.50 each. For Color Ads (One additional Color plus black) add $20.00

Contract advertising may be billed quarterly at the request of Advertiser. No volume discounts, or contract discounts are available. For Contract Advertisers, if no new copy is received prior to deadline, your ad will be reinserted as run in previous issue of the JOURNAL.

BUSINESS CARDS, CLASSIFIED ADS AND HAMFEST advertising must be sent accompanied by full payment for insertion. Advertisers who have not paid for advertising prior to deadline, cannot have any advertising inserted until account is paid in full.

The CVRA REPEATER JOURNAL cannot be responsible for errors in advertising, or held accountable for advertising received after published deadlines.

Advertising copy MUST be mailed to: JOURNAL ADVERTISING MANAGER, Ken Holiday, WA4DYY, 1923 Halifax Court, High Point, N.C. 27260

MR. DEALER:

There are several reasons why you should consider Repeater Journal Advertising.

1. The Economy's down-money is tight.

2. There are more dealers out there getting the equipment dollars than ever before in this region.

3. You MUST let the public be aware of your capability, what you have to sell and what services you render.

4. Advertising PAYS! Ask Any Repeater Journal Advertiser.

5. The cost of REPEATER JOURNAL Advertising is less than you think. A full page ad costs about 1.12¢ per subscriber.

6. Readership of the Journal exceeds 8,000 Amateurs when taking into consideration subscribers passing their copy on to someone else. This drops your reader cost to about 1/2 cent.

7. The REPEATER JOURNAL covers YOUR area like NO OTHER magazine.

YOUR ADVERTISING DOLLARS ARE WELL SPENT WHEN USED FOR REPEATER JOURNAL ADVERTISING!

ADVERTISERS KNOW JOURNAL ADVERTISING PAYS!

Did You Know that it costs less than 1.2 cents* per person to show your full page ad in the REPEATER JOUNRAL. Your ad is also aimed at the regional market around you in the 5-state area.

**Based On Full Page Single Insertion Rates*

Yes, for about 1.2 cents per person your advertising reaches over 3,600 readers who live in our area. The largest national Amateur magazine full page costs you about 1.5 cents* per person and over 80% of the readers are out of your region.*

FOR REPEATER JOURNAL RESULT GETTING ADVERTISING

Contact Our Sales Representative: His name and address is on Page 1.

CVRA DISTRICT RAMBLINGS

Compiled by Repeater Journal Correspondents

MIDDLEBORO, KY.—Cumberland Gap, where Daniel Boone once trod is the junction of Kentucky, Tennessee and Virginia. There are some high mountains around there and on one particular 3000-foot mountain W4PPM has decided to put a repeater he coordinated with CVRA-SERA because the majority of his users will be in Tennessee. The 63-23 sub band machine is a Maggiore machine with Wacom duplexer feeding helliax and a multipole antenna. (Henry, W4PPM)

• • •

GREENSBORO, N.C.—Owners of the 16-76 Greensboro repeater report they are having problems with several commercial repeaters which have recently been installed in the same site. Several commercial antennas now surround the 76 antenna. The group is reportedly looking for another site equal to or better than the 500-foot tower they are presently on. (Wayne, K4MOB)

• • •

CHATTANOOGA, TN.—Tom Wolfe, K4CMY has coordinated the 53-13 sub band pair for a local coverage repeater. Details aren't final on the equipment yet. (Tom, WA4ZOK)

• • •

WALNUT GROVE, TN.—W4RJC has coordinated 144.67-145.27 for a repeater in the Meigs-McMinn County area. The G.E. Master II equipment will be feeding a Phelps-Dodge duplexer and gain antenna through 1/2-inch Heliax. The repeater will be used for computer exchanges and general ragchews. (Richard, W4RJC)

• • •

WINSTON-SALEM, N.C.—A large group of RTTY operators are discussing the probability of moving the Winston-Salem 223.10-224.70 repeater from the downtown site to a tower about 300-feet off Sauratown Mt., which will give the machine about 2700 feet AMSL. Coverage should extend well over 100 miles in all directions. It is not known at this time whether the machine will be confined to RTTY or will be also for voice communications. The new location will be about 400 feet higher than the present Sauratown Mt. 220 repeater operating on 223.28-224.88. (Wayne, K4MOB)

• • •

MYRTLE BEACH, S.C.—The Grand Strand ARC (GSARC) repeater 01-61 went off the air for a short period in January, due to the bridge receifier in the power supply going bad and taking the regulator chip with it. The repeater transferred to emergency power and worked until its voltage got so low, the control circuits in the repeater stopped operating. A new board was added to give the identifier a new feature. Now when the repeater goes to emergency power, the I.D. adds "EMG PWP" after the normal call sign. (Tom Harmon, W2CUK)

• • •

BEDFORD, VA.—The 705-105 repeater, formerly located on Johnson Mt., near Lynchburg should by now be located at its new home, on Thaxton Mt., just West of Bedford. The antennas plans call for about 300-feet up on a 1230-foot tower until funds and hardline can be obtained to move it higher. No other changes are planned for the repeater, and the Afton Mt. 615-015 link supposedly will remain the same. (Larry, WB4JBJ)

WELCH, W.V.—The 85-45 sub band repeater was down for a period the early part of the year with blown finals. Andy, WB8WEZ reports the machine should be repaired by press time. ALSO in Welch, Tom Wolfe, WD4KHL who writes a column weekly for the local newspaper has had two new members join the McDowell ARC as a result of the information in the newspaper column. (Andy, WB8WEZ)

• • •

JASPER, TN.—From 1900-feet AMSL on the west side of Signal Mt., the KA4LEN machine will soon appear. The 59-19 sub band repeater will cover the Sequatche Valley from Crossville South into Alabama. Instigators are Jack, KA4LGN, Wallace, KD4XV and Charles, KD4XX. (Charles, KD4XX)

• • •

THE WORLD'S FAIR information station. A kerchunk activated transmitter will have a taped message to provide visiting hams with basic Fair information and will guide them to specific repeaters in case they need additional information. Robin WA4TEM is working on the project at the Knoxville, Tn. site. The frequency is 146.625 simplex. (Sam, WB4HAP)

• • •

MORE WORLD'S FAIR. Knoxville, Tn.—The Tennessee Phone Net on 3980 khz will be conducted from the Amateur Radio pavillian on Monday nights throughout the fair. The special events World's Fair station is WA4NFS. Jim Holliday, KB4SN and Ray Adams, N4BAQ will alternate as net control stations. The net meets nightly at 0030Z. (Ray, N4BAQ)

• • •

GREENSBORO, N.C.—Frank, N4AZM now has most of the bugs out of his sub band repeater on 65-25. The machine is located at his house with antenna on his 170-foot tower. He hopes coverage will extend into Winston-Salem when everything is working properly. (Frank, N4AZM)

• • •

LOCUST, N.C.—Glenn Pearson, WA4LBT has coordinated the frequency of 448.7-443.7 for a repeater in the Locust area. He said the machine will initially be installed at his home at the present time until a suitable site can be found. The antenna is a Ringo Ranger on the 80-foot level of his tower. The repeater is a VHF Engineering kit converted. It will have a Lunar preamp with ½-inch heliax and a 3 cavity DB Products duplexer. Glenn said the repeater will be extremely portable, in fact they plan to have it set up and on display operational at the Shelby hamfest in September. (WA4LBT)

LAUGH WITH WD8PPI & TSRAC-BNT

Who wants to marry a girl who makes biscuits like her Mother. I want to marry one who makes dough like her father. **PLUS!** A personnel manager was discussing company benefits with a new employee. "Or if you prefer, he explained, "you may elect to skip coffee breaks and retire three years early."

WEST VIRGINIA NOTES

—By Ted Wolfe, WD4KHL

Ken Rupe WD8AEW of South Charleston is a regular check-in each week on three area 2-meter nets with announcements. Ken keeps a record of amateur related events in the area and brings that information weekly to the Kanawha Valley 2-meter net on the Charleston WB8CQV (146.28/88) repeater on Sunday night at 8:30 and to the Kanawha-Fayette-Clay ARA net on the W8FG Lick Knob (144.87/145.47) repeater on Monday nights at 8:30. He also checks in each Sunday night with the same information for the Putnam County net on the K8SLI (147.87/27) repeater at Scott Depot.

• • •

The Beckley Black Diamond ARC repeater K8BO (146.25/85) on Flat Top Mountain was down for a time after its tower fell early this year. They hope to have it back on soon.

• • •

The Bluefield/East River Mountain W8MOP (144.89/145.49) repeater was also down for a time because their antenna buckled, apparently because of high winds. Because of a lightning strike the club also had to replace its receiver component. Hopefully it is back on the air by the time this sees print.

• • •

The McDowell County ARC repeater on Caretta Mountain at Welch WB8SXZ (144.85/145.45) lost its finals and was down during the month of March but it should be operational again by the time you read this.

• • •

Over half a dozen members of the East River ARC at Bluefield traveled on Monday evening, March 8, to New River Community College at Dublin, Va., to present a program on computer based teletype operation to members of the New River Valley ARC.

• • •

The radioteletype (RTTY) interest group in the lower Kanawha Valley has now begun meeting twice each month at the Hansford Center in St. Albans. The group's meetings coincide with the twice monthly meeting of the St. Albans Civil Preparedness group at the same location. Those meetings are on the second and last Friday of each month at 7:00 p.m. The meetings are open to all amateurs interested in RTTY operations.

Group members stress they would like to expand to full statewide RTTY capability and they welcome hams from anywhere in the state. They've organized a 75-meter RTTY net at 7:00 p.m. local time each Tuesday. The net frequency is 3620 Mhz. Some of the group now operate 2-meter RTTY on a simplex basis in the Valley and hope later to get a regular 2-meter net going.

• • •

Friends of Johnny Jones WB8CQV who owns the 146.28/88 repeater in Charleston report he plans some improvements to that machine serving West Virginia's capital city. The proposed improvements include a second receiver site with a voting panel to select the best of the incoming signals to be fed to the output. This should improve coverage of the repeater. He also plans to link with the Huntington WB8EZR (146.04/64) repeater located on the TV-13 tower at Barker's Ridge.

• • •

Jeff Clark KA8NNX of Charleston recently upgraded to a General Class license at Cincinnati. Jeff, who works for WCAW radio in Charleston, is also Program Chairman for the Kanawha Valley ARC. Jeff's new call is N8DTN. He arranged the March 5 program which brought two Kanawha County officials to the club to address members. The visitors were Bud Martin KV4FR, the County's Communications Officer, and Bill White, the county's Director of Emergency Services.

• • •

A recent issue of the KVARC's **Splatter** newsletter credited Randy Coles WA8IWZ with successfully negotiating termination of an interference problem on 2-meters caused by one of the Charleston area cable TV firms.

• • •

Events coming up in May for which amateurs are expected to provide communications support are the March of Dimes Marathon in Charleston on May 2 and the Coal River Canoe Race at St. Albans on May 8. There are no details yet on amateur communications support requirements for the Labor Day weekend Sternwheel Regatta on the Kanawha River in Charleston.

• • •

The Huntington, WV, Hamfest is scheduled for June 13. The West Virginia ARRL Convention and Hamfest will be July 3 and 4 at Jackson's Mill, and the Bluefield Hamfest is set for August 22. Many local radio clubs are well into their planning for Field Day coming up on June 26.

• • •

Don Marcum N4BDX in Grayson, Ky., advised me that there are two nets each week on the 144.79/145.39 repeater at Grayson. Those nets are at 8:00 p.m. each Monday and Friday night. That Kentucky repeater is accessible to West Virginia hams in the Huntington area. I've also provided Don with information on the CVRA/Southeastern Repeater Association.

• • •

And two late notes from the Fayetteville, WV, Hamfest held on February 14. When the first prize ticket was drawn we had no name to go with the ticket as the purchaser had failed to log her number along with her name on the log at the registration desk. Since you didn't have to be present to win the three top prizes, we publicized the winning number on area repeaters and finally heard from the XYL of Jack Ray, KC8FI, at Branchland. The couple had left the hamfest early and since she had won a minor prize with the ticket on one of the hourly drawings she had tossed the ticket stub in the wastebasket at home. She rummaged through the trash and came up with the stub and was able to claim the Icom IC2AT for the Old Man.

A 14-year old Bluefield novice — Mark Williams KA4WDO — won the third prize consisting of a 2-meter antenna and copies of the U. S. and Foreign Callbooks. Before he left the hamfest just after noon Mark's father, Don WA4AUA, told me the only thing he had purchased that day had been a Callbook for Mark. Don says they were able to sell the extra Callbook without trouble.

RADIO ACCESSORY CATALOG

Mail orders with check accepted. Add $1.50 UPS Shipping for Mobile-type antennas, $1.00 for Portable type antennas. North Carolina residents add 4% Sales Tax. Prices and stocks subject to change without obligation or notice.

LARSEN MOBILE ANTENNAS

"You Can Hear The Difference"

IN STOCK 5/8-Wave

2-Meters, 220 Mhz, 440 Mhz, and 10-Meters

Your Choice of Mounts:

- **Permanent 3/4-In Hold**
- **Trunk-Lip**
- **Trunk Lid (w/"L" Brac)**
- **Magnetic**

36.00 each

10-Meter Antennas (NMO Model) $40.00

WE SELL SEPARATE PARTS TOO!

Mounts, whips, coils, ¼-wave whips, O-rings, gaskets, hole plugs, rod tips, "L" Brackets, Weather caps.

If a part of your Larsen breaks, or you want to add antenna to another car, You don't have to buy a whole new antenna, just buy the part or mount you need. That's THE ADVANTAGE of Larsen Antenna products. Specify part and write for price!

RF CONNECTORS

PL259 w/UG-175 (for RG58)	1.35
Quik Connect PL259 for RG58	1.25
BNC to SO-239 adaptor	3.50
BNC Male connector	2.25
6-Pin Std. Spkr/Mic plug	7.95

Add 50¢ shipping

W2AU (Unadilla) PRODUCTS

W2AU Balun (1:1 or 4:1)	15.50
Ansulator (Center Hanger)	8.95
Endsulators (for dipoles)	2.75 ea.
150-ft. Stranded Copper wire	9.95

Add $1.00 shipping

CALLBOOK PRODUCTS

U.S. Callbook (1982)	16.00
Foreign Callbook (1982)	15.00
SAVE!! Both For	29.00

Add $2.00 for UPS Shipping

LARSEN KULDUCKIES 2-METER RUBBER DUCKS

BNC-TNC-PL259 Base Ducks **11.50**

5/16 x 32 Thread Base Ducks **9.50**

(Fits Icom 215, Tempo, HyGain, Others)

TRIONIX RUBBER DUCKS & TELESCOPING WHIPS

Stubbie Ducks (2-meters) **9.95**

(BNC & 5/16 x 32 Base)

Teloscoping ¼-wave Whips **8.95**

BNC, 5/16 x 32 & PL259 Bases)

TOKYO POWER 2-METER AMP 1-4 watt in - 16-30 out .... SPECIAL $79.00

NOTICE: WE EXPECT TO BE CARRYING THE VALOR LINE OF MOBILE ANTENNAS, RUBBER DUCKS CIGARETTE LIGHTER CHARGE CABLES, 5/8-WAVE HANDHELD ANTENNAS, AND MUCH MORE IN THE NEAR FUTURE. WATCH FOR THESE EXCITING NEW ACCESSORY PRODUCTS AT OUR BOOTHS AT HAMFESTS!

Williams Radio Is Your Portable and Mobile Antenna Headquarters

WILLIAMS RADIO SALES

WAYNE C. WILLIAMS K4MOB
600 LAKEDALE ROAD, COLFAX, N.C. 27235
(919) 993-5881 Evenings and Weekends

1982 CHARLOTTE HAMFEST

The people were elbow to elbow and dealers were pushed to keep up with buyers as the turnstiles clicked off a record setting two-day attendance at the Charlotte Hamfest on March 20-21. The Charlotte Civic Center was jammed on Saturday the 20th as 6,000 Hams and computer hobbyists vied for position at the demonstrations or to buy the wares. Another 4,000 showed up for the Sunday session and comfortably filled the Civic Center, but the pace was not quite as hectic as on Saturday.

For the first time a Computerfair was added to the Charlotte Hamfest and both hardware and software were displayed and sold by manufacturers and dealers. Several of the forums were devoted to computer interests, in line with the increased attention that Hams are giving the personal computer lines.

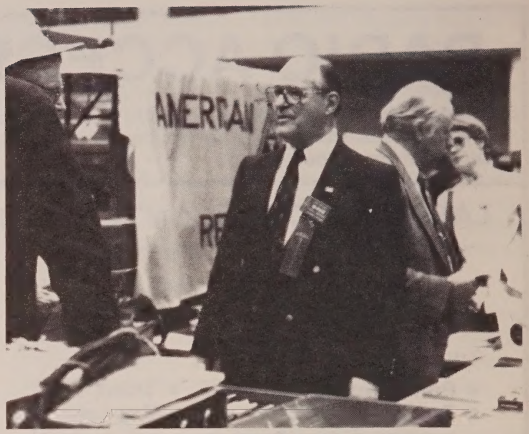
Kenwood chose the occasion to show, for the first time anywhere, its new 930-S HF transceiver. Yaesu made one of its rare hamfest appearances and showed its late line. Most of the major manufacturers were represented at the show.

Seventy-four dealers bought 130 booths, and the Hamfest gave another ten booths of space to such "service" organizations as CVRA-Southeastern Repeater Assn., Quarter Century Wireless Association, Antique Wireless Association, U. S. Weather Service, Ten-Ten Net, JAARS, QSL Bureaus etc.

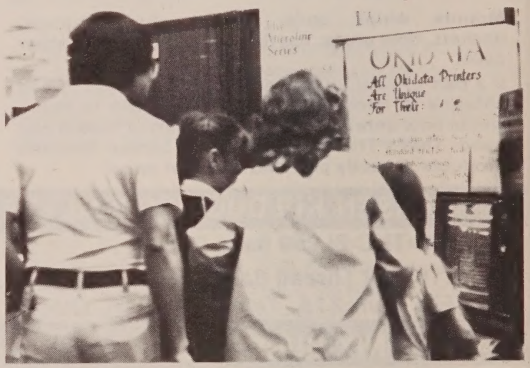
This Hamfest included the ARRL Roanoke Division Convention. On hand to greet friends, discuss League matters and listen to gripes were the Roanoke Division Director, Gay Milius, W4UG; the Vice-Director, John Kanode, N4MM; Immediate Past-Director, Phi Wicker, W4ACY; a number of Assistant Directors; SCM Ian Black, WD4CNR; and others in the ARRL hierarchy. The Managing Editor of **QST** magazine, Laird Campbell, W1CUT, conducted one of the forums and was at the ARRL booth to answer questions about the magazine.

Reports coming in since the Hamfest indicate that this was not only the biggest Charlotte Hamfest but also the best ever, in the opinion of dealers and spectators alike.

—G. A. Hutchinson, KD4E



A GOOD LISTENER, Gay Milius, W4UG, Roanoke Division Director ARRL mans the ARRL booth at Charlotte Hamfest answering questions, passing out ARRL literature and listening to Amateurs (Photo by Louise Hutchinson)



BACKS OF HEADS were the only thing that could be photographed at the Computer demonstrations at the Charlotte hamfest. The first year for this addition was a great crowd pleaser, especially the game computers for the kids to play. (Photo by Louise Hutchinson)

THE CHARLOTTE HAMFEST last March was its biggest and best ever. Observers estimated over 7,000 people Saturday and about 5,000 people Sunday for the two-day event. Here a crowd takes a look at an Earth stations Satellite dish. (Photo by Louise Hutchinson)

TRANSI-TRAP™ SURGE PROTECTORS

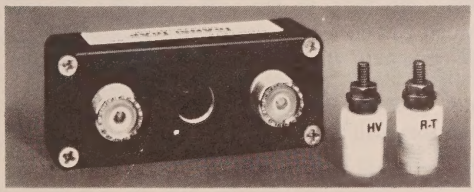
with the field-replaceable Arc-Plug™ Cartridge

LIGHTNING AND THUNDERSTORM SEASON IS UPON US!!!!

THINK HOW ONE TRANSI-TRAP MIGHT SAVE YOU HUNDREDS OF DOLLARS!

Transi-Trap Surge Protectors are gas surge arresters designed to protect sensitive electronic equipment from damage due to excessive voltages or currents generated by transient phenomena.

The elements in the Arc-Plug™ Cartridge are constructed of two metal electrodes hermetically sealed in a gas filled, rugged ceramic cylinder. They perform as voltage dependent switches which can reliably and repeatably carry large currents for brief periods of time. In operation, application of a sufficient voltage across the element causes an arc to form between the electrodes changing its impedance from greater than 10,000 megohms to a few milliohms in a time period of less than 100 nanoseconds. While conducting in the arc mode the voltage across the surge arrester is less than 30 volts.



Models Available:

Transi-Trap Model R-T Low Level Protector—for use with solid state receivers, transceivers or transmitters running up to 200 watts at 50 ohms (hf to uhf).

Transi-Trap Model HV High Voltage Protector—for use with linear amplifiers running up to 2 kW at 50 ohms (hf to uhf).

(Can be used in addition to the Model R-T to form a system)

Replacement Arc-Plug Cartridges . . . for Model R-T . . . for Model HV.

1. AlphaDelta Transi-Trap Surge Protectors are designed for indoor installation at the rear of the equipment* (receiver or transceiver for Model R-T, linear amplifier for Model HV). If outdoor use is planned, it will be necessary to coat thoroughly all surfaces (after attaching coax and ground wire) with a good sealer/protector such as silicone spray. One type is "Slipicone® " made by Dow-Corning.

2. These surge protectors utilize a unique isolated ground system which permits direct earth connection while preventing arc energy from being coupled to the equipment chassis through the coax shields. Lab tests show this method to be best for overall protection. For the system to work, it is **absolutely necessary** to attach a direct earth ground wire to the nut and washers on the Arc-Plug Cartridge. (A cold water pipe connection is suitable if its ground path can be determined and if it is not too long or circuitous.) The surge protectors will not function without this connection as there is not other return path for the arc energy. Tests show that #12 AWG aluminum ground wire is adequate for relatively short runs (10 to 15 feet) with coax braid material recommended for longer runs. Be sure the ground wire does not touch other metal, such as connector shells.

TRANSI-TRAP™

200 WATT $29.95
Plus $4.00 Ship & Handling

2000 WATT $31.95
Plus $4.00 Ship & Handling

N.C. Residents add 4% Sales Tax

WEST ANTENNA SERVICE
ROUTE 6 BOX 529-A
GREENSBORO, N.C. 27405

CALL TOLL FREE 1-800-334-4252
NC RESIDENTS 1-800-632-0389
LOCAL CALL 621-2473

R-T

Arc-Plug Cartridge removed from housing

When ordering replacement cartridges, be sure to specify the correct model.

"MONITORING TIMES" TABLOID NEW FOR MONITORING GROUPS

A new area newspaper styled publication is out. "Monitoring Times" recently published its 2nd edition for March-April, 1982 with a third edition due out probably this month.

Publisher of "Monitoring Times", Bob Grove WA4PYQ of Brasstown, N.C. said the publication is designed to provide information and enjoyment to those who monitor the radio spectrum.

The "Times" is filled with interesting reading, monitoring, frequencies to look for various types of information, constructing and improving monitor antennas and a "Listeners Log" containing area aircraft, police and other frequencies.

Grove said he was overwhelmed at the reaction of readers from his first edition.

The newspaper will contain only advertising pertaining to the SWL and other people who monitor the frequency spectrum for a hobby he said. Interested persons may write Grove Enterprises, 140 Dog Branch Road, Brasstown, N.C. 28902 for subscription information.

A NEW JOURNAL PRINTER

With this issue the Repeater Journal staff welcomes a new printer for our magazine, Greensboro Printing Co. of Greensboro, N.C.

Greensboro Printing Co., for years has been noted as one of the outstanding printers in Greater Greensboro. Owner Margaret Earle is very active in Civic organizations in the Greensboro Chamber of Commerce. Her plant located on the western outskirts of Greensboro contains the most modern printing presses and bindary equipment available. It was with this modern automated high speed equipment that reduces man hours in publishing a magazine that Greensboro Printing was able to quote a price well within the limits and with the competition that the Repeater Journal staff sought. Our very able Sales representative, Peggy Clapper has assured us that we will get a quality product.

Our typesetting is done by Mirror Graphics of Greensboro. Most of the staff has been familiar with the Repeater Journal for years, and know just what the Repeater Journal staff wants in design and layout. Millie Henley and Shirley Trent owners, have given us the top typesetting team in the city to do our typesetting.

With Donna and Elizabeth on the keyboards, Williams doing the layout and design, and Greensboro Printing Co. doing the printing, and Jim and Carol doing the mailing, we can only get better!

MANASSAS (VA) HAMFEST JUNE 6

The eighth annual Manassas Hamfest will be held Sunday, June 6th at the Prince William County Fairgrounds, ½-mile south of Manassas on Route 234. The Ole Virginia Hams ARC sponsored event will feature two exhibit halls for commercial venders and fairgrounds with plenty of parking for flea market and tailgating.

A highlight of this years hamfest will be the CVRA-SERA first Santec award to some lucky person who has joined or renewed Associate Membership since February 1. Drawing will be held during the regular hamfest drawing Sunday afternoon.

For further information, write Hamfest, Ole Virginia Hams ARC, P.O. Box 1255, Manassas, Va. 22110. Talk-in is on the Manassas 37-97 repeater. Prizes, special events, and food available.

SPECIAL EVENTS STATION IN WV

—by Andy Pitt, WB8WEZ

Amateurs out of Welch, West Virginia and area plan a special events station in June to celebrate West Virginia Day. The station will operate from June 15 to June 22. HF frequencies include 3980-3990; 7230-7250; 14.260-14.290; 21.330-21.380 and around 28.600 mhz. with a QRP 10-meter station.

The group will also be on area repeaters in Southwestern Virginia and Southern West Virginia. Listen evenings from 6 PM to 8 PM. Some operators will be on 146.52 simplex on announced times.

A handsome certificate will be available for working the special events operators. Send S.A.S.E. to address announced from special events operator upon work station.

Heard on the Party Line

"Where is the capital of the United States?" Ans: "In gifts and loans all over the world.';

"How is business these days?" Ans: "It's so quiet you can hear the notes at the bank a block away drawing interest."

Some people riding on a magic carpet would complain about the pattern.

"Did they take an X-ray picture of the radio amateur's jaw at the clinic?"

"They tried to do it but all they got was a moving picture."

OM: "I've never sent code this badly before."

YF: "You mean to tell me you have never sent code before?"

—TSRAC – Charley Vorderberg, WOCCT

the DURHAM FM

ASSOCIATION

PROUDLY

PRESENTS...

THE 1982

DURHAMFEST

SATURDAY MAY 15th

South Square Mall, Durham, N.C.

PRIZES

All facilities under large Parking Deck!

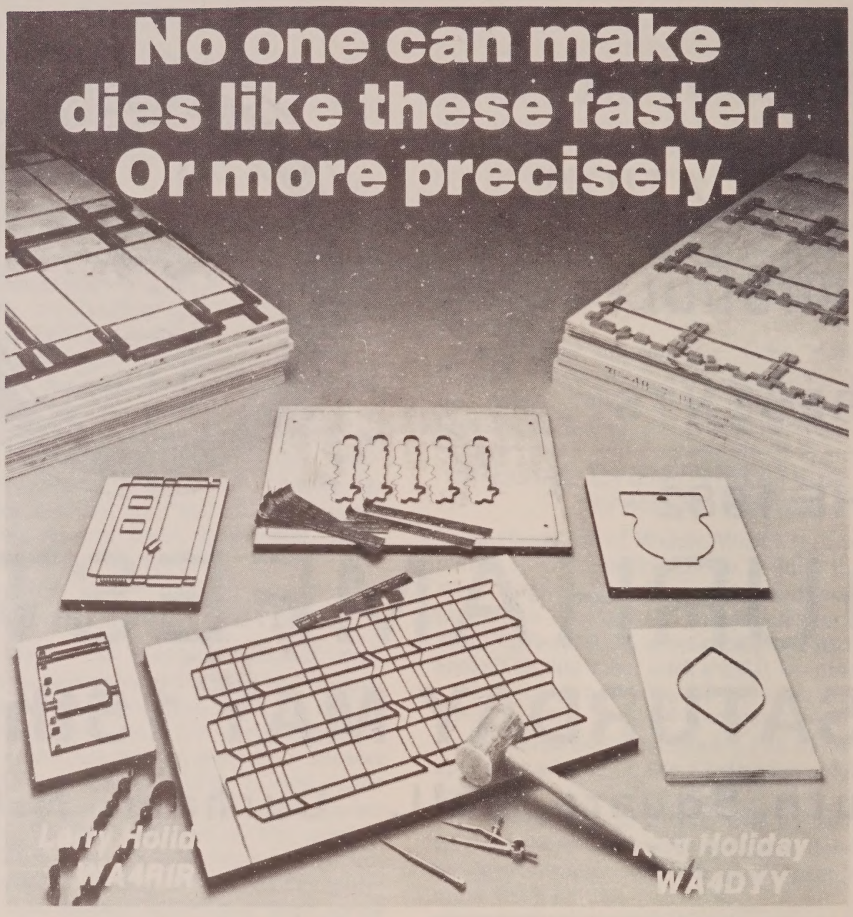
Beautiful Mall Facilities-Shopping-Restaurants-Movies

TALK IN -
147.825-147.225

TICKETS $3.50
Advance or at Door

For Information Write

DFMA
P.O. Box 8651
Durham, N.C. 27707



We'd like you to see our laser prove it!

Just ask us to show you how fast we can handle your toughest assignment, whether it's a folding carton, tags, labels, irregular shapes or something you haven't dreamed of yet. It's a snap with our LASER die making system. Faster, more accurate than any conventional method. One up or step and repeat to one hundred up makes no difference. Thanks to space-age technology, each die will be an exact duplicate of your original. All you need is our reference number to re-order. No prints. No samples.

Does it all sound too good to be true? Why not make us prove it? Call us the next time you need speedy service on a really difficult job, we'll show you what fast precise die service really means.

SANDVIK
STEEL RULE
DISTRIBUTOR

HOLIDAY
Steel Rule and Die Corp.
106-B South Walnut Circle
Greensboro, North Carolina 27409
919/292-1165

MEMBER OF DIEMAKERS AND DIECUTTERS ASSOCIATION

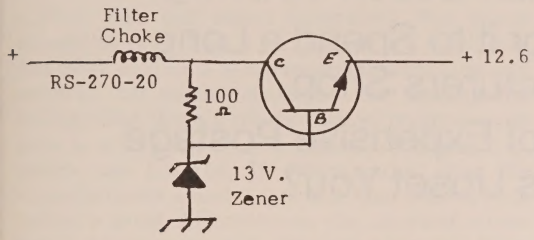
Technical

—by Gerry Milhoan, WD8CQW

(Tnx: Loud 'N Clear Newsletter, Jackson County ARC, Ripley, W.VA.

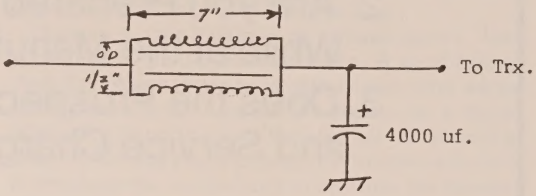
SIMPLE MOBILE VOLTAGE REGULATOR

The simple mobile voltage regulator shown below may save your Two-Meter transceiver if the automobile voltage regulator fails. The 2N3055 should be heat-sinked if current drawn by the transceiver is in excess of 2 amps. on transmit.



ALTERNATOR WHINE FILTER

Bugged by Alternator Whine? If so, try this Super Simple, but effective, whine filter. The LC circuit is a low-pass filter and shunts the high frequency to ground. The inductor consists of a one-half inch O.D. ferrite rod, 7-inches long, wound with a single bifilar layer of #14 farmvar wire.



LAUGH WITH WD8PPI & TSRAC-BNT

A little boy came home with a five dollar bill and said he found it. "Are you sure it was lost?" asked the mother. "Sure I'm sure," said the little boy, "I saw the man looking for it." **BONUS!** Circus manager to the human cannon ball: "You can't quit! Where will I find another man of your caliber?" **FINALLY!** The nudist camp had a masquerade ball. A man with varicose veins won. He went as a road map.

HELP! ROPE! ROPE! ROPE!

WE ARE NOW HANDLING ALL TYPES OF SYNTHETIC ROPE

POLYPROPELENE, NYLON AND POLYDACRON
IN SOLID BRAIDS, HOLLOW BRAIDS AND TWISTED

ALL TYPES ARE AVAILABLE IN SIZES FROM NO. 4 to 1-INCH. GOOD PRICES!

We also stock black twisted polyprophelene rope that will last two or three times longer in the sun than regular poly rope. This is especially good for dipoles and overhad supports on beams at very low cost.

CHECK THESE PRICES:

BLACK TWISTED

¼-inch - 4¢ per foot
600-ft. spool - 16.88
1,000-ft. spool - 26.88

3/8-In. - 8¢ foot
600 ft. spools - 37.50
1,200 ft. spools - 75.00

Call for prices on other Sizes and Types!

All prices are FOB Greensboro, N.C.

WEST ANTENNA SERVICE

HARWOOD WEST, WB4RLO

CALL TOLL FREE 1-800-334-4252
NC RESIDENTS 1-800-632-0389
LOCAL CALL 621-2473

ROUTE 6 BOX 529-A GREENSBORO, N.C. 27405

"HAVING RIG PROBLEMS ?"

THEN, TAKE A MOMENT OF YOUR TIME TO CONSIDER THIS . . .

1. Has The Warranty Run Out on Your Rig?
2. Are you Prepared for it to Spend a Long While at the Manufacturers Shop?
3. Does the Prospect of Expensive Postage and Service Charges Upset You?

IF SO, CONSIDER THE ALTERNATIVES

EXPERT SERVICE WITH

BI-COMM

TEN-TEC WARRANTY SERVICE!

Expert Service offered On VHF , HF, AM, FM & SSB Gear Including DRAKE, COLLINS TEN-TEC, SWAN, WILSON, ICOM, YAESU, KENWOOD, STANDARD, HEATH AND OTHERS

DAILY 5 PM to 10 PM
SAT 9 AM to 5 PM

- MINIMAL TURNAROUND TIME
- COMPETITIVE RATES
- SATISFACTION ASSURED

BI- COMM

BINO COMMUNICATIONS, inc

K4CJZ CHUCK

WA4IHA SUE

KA4HIC KEN

2401 DEVEROW PLACE
GREENSBORO, N.C. 27407
PHONE (919) 292-8052

SOME CONTESTING HINTS ON HF

—by Cecil Baldwin, WB4VMS

Most Amateurs who have worked contests in the past have worked out their own scheme of how is the best way to tune and operate for maximum number of contacts and points.

Here are some ideas I have for the newcomer to contesting. Later as you become seasoned, you can polish some of these ideas and get your own efficient way of doing things to ge the "big" score.

First, let's talk about equipment. For phone contest work, I think a transceiver is a must. You can work a contest using separate transmitter and receiver, but much time is lost zero beating and tuning. One thing a phone station receiver must have is selectivity. A great many top phone contesters use 1.8 khz. IF filters rather than the manufacturers usual 2.4 or 2.2 khz. filters. This makes a great difference on the crowded phone bands during a contest. Of course a good directional antenna is a must.

Also, convenient, but not necessary, is an active audio filter and perhaps a headset microphone. The audio filter helps decrease some of the "Donald Duck" QRM and the headset microphone lets you use VOX for hands free operation without being tied to a desk microphone.

Let's talk now about operating procedures. Phone contesters are usually divided into two catagories, "Sitters" and "Hunters". Sitters find themselves a frequency and camp out on it, calling CQ and working anyone who comes by.

Hunters scan up and down the band working the sitters. As you can see, both methods have one big disadvantage, whichever you choose, you don't work the other station on the band who are using the same mode of operation you are.

Hence, a combination is advantageous, but, which mode should be used when. A good rule of thumb is: When the band is open to a country with a good population of hams like Japan, be a sitter. When the band is just a free for all, go Hunting. Whichever way you go, swap off occasionally both to break up the routine and to increase the number of new stations available to be worked.

Most phone operators usually tune from the bottom to top of the band in a contest. It might be a good idea for you to tune top to bottom to meet everyone else going up as you are going down.

I hope this helps you new contesters. Good luck!

WATCH FOR US!

The 25th Anniversary

SHELBY HAMFEST

SEPTEMBER 4 & 5, 1982

NOW TAKING DEALER RESERVATONS

Contact: D. Waterson, P.O. Box 2206, Shelby, N.C. 28150

Coming Events

1982 CVRA-SERA CALENDAR

MAY

1-2 .....Tri-Cities Hamfest, JC/KINGSPORT, TN.
1-2 .....Hamfest, GREENVILLE, S.C.
15 .....DFMA Hamfest, DURHAM, N.C.
15-16 ....Ala. State ARRL Conv., BIRMINGHAM, ALA.
22* .....Gaston Cty. Hamfest, GASTONIA, N.C.
22-23...Roa. Div. ARRL Lea. Plan Meet, RALEIGH, N.C.
22-23.....Delta Div ARRL Conv., KNOXVILLE, TN.
30 .....RVARC Hamfest, ROANOKE, VA.
30.....Md. FM Assn. Hamfest, HARMANS, MD.

JUNE

6.....Ole Va. Hams Hamfest, MANASSAS, VA.
13.....Tri-State ARA, HUNTINGTON, W.VA.
12-13 .....Atlanta Hamfest, ATLANTA, GA.
26-27.....ARRL FIELDDAY

JULY

3-4...W.Va. State ARRL Conv., JACKSON'S MILL, W.VA.
17*.....Summer Swap Fest, CARY, N.C.
23-25 .....ARRL Nat'l Conv., CEDAR RAPIDS, IOWA
25 .....TSRAC Hamfest, WHEELING, W.VA.
25 .....BRATS Hamfest, BALTIMORE, MD.
27*.....Hamfest, NASHVILLE, TN.

AUGUST

1 ....SVARC Hamfest (Winchester), BERRYVILLE, VA.
1*.....Jackson Cty ARC Hamfest, RIPLEY, W.VA.
22 .....East River ARC Hamfest, BLUEFIELD, W.VA.
22 .....Ill. State ARRL Conv., ST. CHARLES, ILL.
29*.....Hamfest, MORGANTOWN, W.VA.

SEPTEMBER

4.....CVRA Annual Meeting, SHELBY, N.C.
4-5.....25th Anniv. Hamfest, SHELBY, N.C.
12* .....Hamfest, CINCINNATTI, OHIO
12*.....Hamfest, GAITHERSBURG, MD.
24-25.....QCWA Nat'l. Conv., NASHVILLE, TN.

OCTOBER

3 .....Hamfest, ROCK HILL, S.C.
3* .....Hamfest, ROME, GA.
7-9 1983.....ARRL Nat'l Conv., HOUSTON, TX.
9 .....Asheville Autumnfest, ASHEVILLE, N.C.
9-10...Va. State ARRL Conv., Hamfest, VA. BEACH, VA.
9-10*.....Hamfest, MEMPHIS, TN.
23-24.....Tn. State ARRL Conv. CHATTANOOGA, TN.

NOVEMBER

7.....Hamfest, CONCORD, N.C.

REPEATER JOURNAL SANTEC GIVE-A-WAY DRAWING

June 6 .....Hamfest, MANASSAS, VA.
Sept. 6 .....Hamfest, SHELBY, N.C.

CLASSIFIED

If you have equipment you would like to swap, sell, buy or trade you're invited to send us your want ads. Mail them to our Sales Manager listed on page 1 of the Journal. Ads are not limited to Amateur Radio items.

CLASSIFIED AD RATE: Non-Commercial or Commercial. $2.25 per ad. Enclose check with ad in advance of Publication. (Max. 30 words per ad).

Ads must be submitted 30 days prior to publication. The CVRA assumes no responsibility as to the accuracy of description of equipment or its condition.

WANTED – CLEGG FM-76 or other comparable 220 mhz. rig. Contact STEWART TYLER, 1229 Willowbrook Dr., Suffolk, Va. 23434. WA4JUO.

• • •

NEED A BOOK? Original manuals on Collins, Hallicrafters, Hammerlund, National, Kenwood, Yaesu and others. Send #10 SASE for complete list to: SMITH, Box 6843, Asheville, N.C. 28816.

• • •

SANTEC Has the Time For you! See our Santec ad this issue for the new, exciting, unbeatable Santec ST-144 now in Stock for immediate delivery. Special Discount on all accessories to our Customers. WILLIAMS RADIO, Colfax, N.C.

• • •

SALE: G.E. 2-frequency P.E. – $250.00. 8-frequency P.E. with search lock – $350.00. Temp S-4T – $300.00. Hallicrafters SX-42 – $75.00. Model 28 RTTY – $100.00. PAUL LILLY, K4STE, (804) 525-2358. Route 2, Box 777, Forest, Va. 24551.

• • •

FREE HANDHELD!!! The Repeater Journal is giving away TWO new Santec ST-144 handhelds, one June 6th and the other Sept. 6th. All you have to do is JOIN or RENEW for one year with CVRA-SERA to be eligible to win. See contest announcement this issue.

• • •

FOR SALE: Complete Novice Station $275.00. Drank 2NT Transmitter, Drake 2C Receiver, Drake 2CS matching speaker. Also Hallicrafters HA-5 VFO. All in very good condition. TERRY BLACKBURN, 2313 Wickham Road, Kernersville, N.C. 27204. (919) 869-5276.

CHECK YOUR MAILING LABEL

If you have moved recently, is your mailing lable showing your new address. Is your callsign right. Check the expiration date on your label. If any changes are necessary, or its time to renew, send your information to CVRA-SERA Associate Membership, P.O. Box 5655, Greensboro, N.C. 27403.

Editorial Comment

THEY SHOULD KNOW BETTER

Continued From Page 1

auxiliary receiver on that frequency (which was a standard repeater input). These two fellas carried on for sometimes, did considerable talking about their friends, their club, and expressed frank and explicit language at times about their ideas about things in general.

Boy! Would they have been surprised to know that Amateurs for a 50 mile radius could be listening to them on the repeater they were keying up . . . full quieting.

You can tune just about any night and find persons talking on their "secret channel." They actually think no one can find them there, but are they in for a surprise.

Everyone that operates two-meters, or for that matter any other UHF-VHF band which contains repeaters should use only STANDARD AUTHORIZED SIMPLEX CHANNELS.

There is absolutely no excuse for anyone not knowing the band plans. If they don't know them, they should stick to the local repeater until they learn the plan, or stay off the air until they learn simplex frequencies.

There is no justification for anyone using any frequency other than an authorized simplex frequency for simplex operation. Repeater inputs, repeater outputs and the SSB portion are absolutely taboo and should not be used under any circumstances.

Fortunately for the offenders, only the Repeater Journal has been notified, so we can try to convince them they are operating wrong. If it continues to get worse, someone is going to get fed up with it and start calling the FCC.

If you are one that innocently tries to use a "secret" simplex frequency, quit kidding yourself, get on a standard simplex frequency and talk . . . things in our area are not so crowded that you cannot find a clear channel . . . you can't use that as an excuse.

For your education or lets just say to refresh your memory, the two meter simplex frequency channels authorized are: 146.49, 146.52, 146.55, 146.58 and 147.42, 147.45, 147,48, 147.51, 147.54 and 147.57 mhz.

It is not suggested you use any of the frequencies in the 144-145 mhz portion of the band. Other than the 20 repeater channels, there are also beacons, Oscar links, telemetry and SSB. The numerous simplex channels in the 146-147 portion are more than enough to give you plenty of operating room, regardless of your power, and how far you can talk. I should know, I've run the big antennas, the big power on two-meters and I always found a simplex place that wasn't being used . . . you can too!

So fellas, give us all a break, we don't care to hear your secretive snide comments on our repeaters and someday, we just might record your message and play it back to you on the repeater so you can see what you sounded like. Remember, no matter where you are . . . someone is probably listening. Don't help them by getting on a repeater input . . . Stay on authorized simplex frequencies and we can all be happy.

—Wayne C. Williams, K4MOB, Editor

WE PAY JUST LIKE ANYBODY ELSE

Continued From Page 1

businesses are generally the Repeater Journals best advertisers. They do it to support the Journal, and of course they know the Journal gets results from their advertising. But I can assure you this . . . no Officer, Director or appointee who runs a business or advertises in the Repeater Journal has EVER gotten a discount in their advertising. The are treated as EVERY other advertiser. They pay for every line they put in this book.

Back to the pay for our services. No one to my knowledge has ever received a penny for their services to CVRA-SERA other than normal telephone and postage reimbursements. We do not and cannot pay anyone for writing for the Repeater Journal ever, because it cannot be done. Workers cannot be paid, in accordance with our Constitution and By-Laws.

So if you ever hear anyone accusing a Repeater Journal staffer, or CVRA-SERA Officer, Director or other appointee of taking advantage of the organization, send them to me. I'll be glad to set them straight right quick. We resent the accusations folks.

—Wayne C. Williams, Editor

THE "IN" THING-REMOVE THE "N"

If your home repeater in the Repeater Journal repeater index has an "N" in the first colume past the frequency, it means they are not supporting CVRA-SERA. Why not give the club or trustee a call and urge them to join as full members and get the "N" wiped off. It's the "IN" thing to do!

WHERE TO BUY DIRECTORY

Amateur Radio Repair Center (NC) .....Ins. Bk. Cover
Bino Communications (NC) 52
Business Card Advertising 40
Charleston Hamfest (SC) 34
Chesney Harris & Assoc. (NC) 30
Doc's Communications (Tn) 12
Durham Hamfest (NC) 49
Dynamic Engravers (NC) 23
F & M Electronics (NC) 16-17
GISMO Communications (NC) 4-5
Holiday Steel Rule & Die Co. (NC) 50
Hometronics (NC) 22
Knoxville Hamfest (TN) .....Ins. Ft. Cover
Manassas Hamfest (VA) 21
Mar-Vista Motel (SC) 6
Shelby 25th Anniv. Hamfest (NC) 53
Tidewater Va. Beach Hamfest (VA) 10
Two-Way Radio of Carolina (NC) 18
West Antenna Service (NC) 15, 32, 47, 51
Williams Radio Sales (NC) 27,45

T-MARC - THE MID-ATLANTIC REPEATER COUNCIL

MARYLAND REPEATERS

TWO METERS

ADELPHI	WB3FRW	144.77	145.37	
ANNAPOLIS	W3VRD	144.73	145.33	
ASHTON	WR3AFT	146.40	147.00	
BALTIMORE	K3SP	146.07	146.67	
BALTIMORE	W3DID	147.63	147.03	
BALTIMORE	W3BPX	147.885	147.285	
BEL AIR	K3GUX	146.175	146.775	
BETHESDA	K3YGG	144.69	145.29	
CHELTENHAM	WA3OPC	147.75	147.15	
CHEVERLY	WR3ABC	146.01	146.61	
COLLEGE PARK	W3EAX	144.89	145.49	
COLUMBIA	K3CUJ	147.735	147.135	
COLUMBIA	WR3AGP	147.99	147.39	
CROWNSVILLE	WR3ACL	146.10	146.70	
CUMBERLAND	WA3III	144.85	145.45	
CUMBERLAND	WR3AGI	146.28	146.88	
DAVIDSONVILLE	WR3AJP	147.705	147.105	
E. BALTIMORE	WR3AFI	147.84	147.24	
EASTON	WA3GVI	146.445	147.045	
FREDERICK	WR3ABL	146.13	146.73	
FREDERICK	WA3OHI	147.66	147.06	
FROSTBURG	K3CCC	147.99	147.39	
GAITHERSBURG	WR3AKP	146.355	146.955	
GLEN BURNIE	WA3PJQ	146.205	146.805	
GREENBELT	W3ZM	146.235	146.835	
GREENBELT	W3MZG	146.28	146.88	
HAGERSTOWN	W3CWC	146.34	146.94	
HAGERSTOWN	K3UMV	147.69	147.09	
HAVRE DE GRACE	K3UAV	146.25	146.85	
JESSUP	WA3DZD	146.16	146.76	
LEXINGTON PARK	WR3ACP	146.04	146.64	
LEXINGTON PARK	W3NET	146.265	146.865	
LUTHERVILLE	K3VC	144.61	145.21	
N. BALTIMORE	WA3KOK	146.34	146.94	
OCEAN CITY	W3HTB	147.78	147.18	
POTOMAC	WR3ACF	147.87	147.27	
ROCKVILLE	W3RCN	144.65	145.25	
ROCKVILLE	WR3ABM	146.04	146.64	
SALISBURY	WA3ROW	146.22	146.82	
SALISBURY	WA3YII	146.385	146.985	
SILVER SPRING	WR3AEO	147.78	147.18	
W. BALTIMORE	WR3AGS	147.945	147.345	
WASHINGTON DC	WR3AGX	147.96	147.36	P
WESTMINSTER	K3PZN	144.81	145.41	

SIX METERS

WHEATON	WB3DBU	52.25	53.25	

Md., Del., N.Va. Index Ctsy —
Gary Hendricksen, T-MARC

220 MHZ

DAMASCUS	WR3AHS	222.98	224.58	
DAVIDSONVILLE	N3ARN	222.28	223.88	
E. BALTIMORE	WR3AFI	222.24	223.84	
N. BALTIMORE	N3IC	222.64	224.24	
W. BALTIMORE	WA3DZZ	223.20	224.80	
W. BALTIMORE	WR3AKN	223.34	224.94	
WASHINGTON DC	W3NKF	222.90	224.50	

440 MHZ

ANNAPOLIS	W3EAO	444.475	449.475	
BALTIMORE	W3WCQ	439.25	426.25	V
BALTIMORE	K3SP	444.325	449.325	
BALTIMORE	W3DID	448.40	443.40	
BURTONSVILLE	WA3TKW	448.65	443.65	
E. BALTIMORE	W3WCQ	426.25	1234.25	V
E. BALTIMORE	WR3AFI	444.55	449.55	
FREDERICK	WA3OHI	443.75	448.75	
FREDERICK	WR3ABL	449.80	444.80	
GAITHERSBURG	WR3AKP	443.60	448.60	
GLEN BURNIE	WA3MEJ	448.70	443.70	
HARMANS	W3YYY	443.925	448.925	
HAVRE DE GRACE	K3UAV	448.10	443.10	
JESSUP	WA3DZD	449.10	444.10	
LEXINGTON PARK	WA3UMY	448.05	443.05	
ODENTON	WA3GPC	449.70	444.70	
SILVER SPRING	WB3ARZ	448.45	443.45	
UPPER MARLBORO	WB3IUT	448.30	443.30	
W. BALTIMORE	WA3DZZ	448.35	443.35	
W. BALTIMORE	WA3WLO	448.55	443.55	
WASHINGTON DC	WA3KOK	444.975	449.975	

10 METERS

FREELAND	K3SP	29.52	29.62	

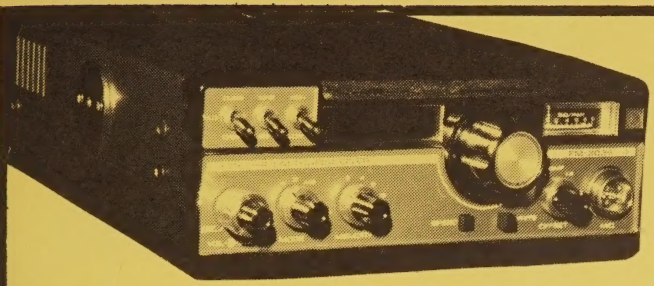
DELEWARE REPEATERS

TWO METERS

BETHANY BEACH	W3HTB	147.78	147.18	
DOVER	W3HZW	146.37	146.97	
DOVER	W3HZW	147.795	147.195	
MILLSBORO	K3JL	147.675	147.075	
NEWARK	WR3ACV	146.10	146.70	
NEWARK	WB3JTK	146.355	146.955	
WILMINGTON	WR3ABA	146.13	146.73	
WILMINGTON	WA3QLS	147.825	147.225	

220 MHZ

WILMINGTON	WB3DPJ	222.40	224.00	
WILMINGTON	AD3M	222.94	224.54	



We have the NEW

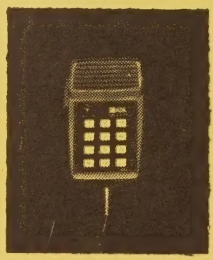
KDK

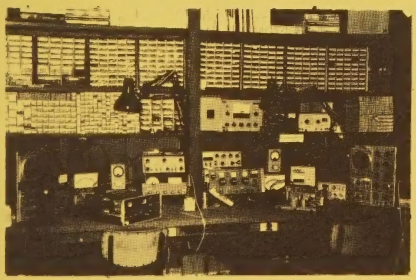
FM-2025A *mark II*

ASK ABOUT TRADES!!

The NEW KDK TT Mic (now INCLUDED with the FM 2025!) is available separately for use with earlier KDK's and is compatable with most two meter rigs. We also stock extra mounting brackets, power cords and other parts for KDK's!

ONLY $39.95





Rig Problems?

Give our service department a call. We would be happy to take a look at your rig. Need parts? Chances are we have what you need in stock. We keep a wide assortment of parts used in ham gear on hand.

Amateur Radio Repair Center

INTERNATIONAL ELECTRONIC COMMUNICATIONS, INC.

1020 BROOKSTOWN AVENUE, WINSTON-SALEM, NORTH CAROLINA 27101 (919) 725-7500

CVRA - SouthEastern Repeater Association, Inc.

POST OFFICE BOX 5655
GREENSBORO, N.C. 27403

BULK RATE
U.S.POSTAGE
PAID
PERMIT NO. 383
GREENSBORO, N.C.
27403

THIRD CLAS ; MAIL

"IN OUR 11th YEAR"

"To Serve . . . . ."

AL T. ROSS
2404 SPRINGWOOD DR.
GREENSBORO, NC

K4CAW
12/87 C
27403

REPRESENTING UHF-VHF INTERESTESTS THROUGHOUT VIRGINIA,
NORTH CAROLINA. SOUTH CAROLINA, TENNESSEE. & WEST VIRGINIA

THE CVRA—SOUTHEASTERN REPEATER ASSOCIATION STATE DIRECTORS, VICE DIRECTORS AND ASSISTANTS

For Assistance in Repeater Coordination, Frequency Coordination, Changes in Repeaters, and Any other Assistance You May Require from the CVRA. Contact Your Local Director or His Assistant.

SOUTH CAROLINA

DIRECTOR
Al Harney, N4EOY
1029 Elm Avenue
Columbia, S.C. 29205
(803) 254-6393

VICE-DIRECTOR
Garry M. Barnette, WA4MDF
P.O. Box 1616
Summerville, S.C. 29483
(803) 871-5995 Aft. 7:30

NORTHERN ASST.
Jim Burns, WD4DOK
Route 4, University Dr.
Lancaster, S.C. 29720
(803) 285-1282

N. COASTAL ASST.
Richard, Nixon, WA4JYR
C/O Mar Vista Motel
605 South Ocean Blvd.
N. Myrtle Beach, S.C. 29582
(803) 272-5125

NORTH CAROLINA

DIRECTOR
Ken Woodard, WA4BVW
Route 2, Box 407
Canton, N.C. 28716
(704) 235-8354

VICE-DIRECTOR
Calvin Dempsey, WA4UQC
1604 W. Canal Street
Tarboro, N.C. 27886
(919) 823-4300

WEST VIRGINIA

DIRECTOR
Karl Morris, WB8GDY
1009 Sand Hill Drive
St. Albans, W.Va. 25177
(304) 727-8453

VICE-DIRECTOR

TENNESSEE

DIRECTOR
Sam Kirby, WB4HAP
Route 3, Majors Rd.
Corryton, Tenn. 37721
(615) 922-1558

VICE-DIRECTOR
Cliff Hensley, WB4NKL
Route 2, Box 25C
Limestone, Tenn. 37681
(615) 257-2100

E. CENTRAL ASST.
Billy Gilley, W4YXA
208 Rivermont Drive
McMinnville, Tenn. 37110
(615) 473-5383

S. EASTERN ASST.
Tom Smith, WA4ZOK
P.O. Box 116
Harrison, Tn. 37341
(615) 899-4425

N. CENTRAL ASST.
J. Tom Park, WD4KWP
1198 Lock 4 Road
Gallatin, Tn. 37066
(615) 452-3822

VIRGINIA

DIRECTOR
Mike Williams, KC4AO
300 McClellan St.
Sandston, Va. 23150
(804) 737-4622 Wk. Days
(804) 793-8302 Wkends

VICE-DIRECTOR
Amos Rhames, K4WQS
2830 Blairmont Dr.
Danville, Va. 24541
(804) 792-0443

S. WESTERN ASST.
Larry Lewis, WB4JBJ
101 Jane Randolph St.
Forest, Va. 24551
(804) 525-5901

ASST. DIR (COASTAL)
Wally Burkettet, WA4KXV
242 Raintree Road
Virginia Beach, Va. 23452
(804) 486-1555

WESTERN TN. - TN.
REP. ADV. COMM.
Dave Wolfe, WA4VVX
77 Lakewood Drive
Jackson, Tn. 38301

ASSOCIATE MBRSHIP.
For Repeater Users
$3.00/year

FULL MEMBERSHIP
For Repeater Owners
$8.00/yr. exp. 12/31